531 WILTSHIRE STUDIES

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The Wiltshire Archaeological and Natural History Society

The Society was founded in 1853. Its activities include the promotion of the study of archaeology (including industrial archaeology), history, natural history and architecture within the county; the issue of a Magazine, and other publications, and the maintenance of a Museum, Library, and Art Gallery. There is a programme of lectures and excursions to places of archaeological, historical and scientific interest.

The Society's Museum contains important collections relating to the history of man in Wiltshire from earliest times to the present day, as well as the geology and natural history of the county. It is particularly well known for its prehistoric collections. The Library houses a comprehensive collection of books, articles, pictures, prints, drawings and photographs relating to Wiltshire. The Society welcomes the gift of local objects, printed material, paintings and photographs to add to the collections.

The Wiltshire Archaeological and Natural History Magazine is the annual journal of the Society and is issued free to its members. For information about the availability of back numbers and other publications of the Society, enquiry should be made to the Chief Executive.

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Notes for Contributors

Contributions for the Magazine should be on subjects related to the archaeology, history or natural history of Wiltshire. Whilst there is no fixed length, papers should ideally be under 7,000 words, though longer papers will be considered if of sufficient importance. Shorter, note length, contributions are also welcome. All contributions should be typed/ word processed, with text on one side of a page only, with good margins and double spacing. Language should be clear and comprehensible. Contributions of article length should be accompanied by a summary of about 100 words. Please submit two copies of the text (with computer disk if possible) and clear photocopies of any illustrations to the editors at the Museum, 41 Long Street, Devizes, Wiltshire, SN10 1NS. A further copy should be retained by the author. The editors will be pleased to advise and discuss with intending contributors at any stage during the preparation of their work. When submitting text on disk, Word or Rich Text Format files are preferred.

Referencing: The Harvard System of referencing (author, date and page, in parentheses within the text) is preferred: e.g. '... one sheep and one dog lay close together (Clay 1925, 69)'. References in footnotes should be avoided if at all possible. Only give references which are directly applicable, repeating as little as possible. All references cited in the paper should be listed in the bibliography using the following style (with the journal name spelled in full, and the place and publisher of books/ monographs given):

For a paper:

- PITTS, M.W. and WHITTLE, A. 1992. The development and date of Avebury. *Proceedings of the Prehistoric Society* 58, 203-12.
- (Note that in citations Wiltshire Archaeological and
- *Natural History Magazine* is abbreviated to *WANHM*) For a book or monograph:
- SMITH, I.F., 1965, Windmill Hill and Avebury: Excavations by Alexander Keiller, 1925-39. Oxford: Clarendon Press

For a paper in a book or monograph:

FITZPATRICK, A., 1984, 'The deposition of La Tène metalwork in watery contexts in Southern England', in B. Cunliffe and D. Miles (eds), Aspects of the Iron Age in Central Southern Britain, 178-90. Oxford: University Committee for Archaeology

Endnotes can be used for specific information that cannot otherwise be comfortably incorporated in the main body of the text.

Illustrations need to be clear and easily reproducible, the format following that of the Magazine. If possible, all original artwork should not exceed A3 before reduction. Drawings should be produced on drafting film or high quality white paper using black ink. Detail and lettering should not be so small that it will become lost in reduction. Mechanical lettering (dry transfer or computer generated) is preferred over hand lettering. Photographs should be supplied as good quality black and white prints, and transparencies and colour prints avoided wherever possible. Original illustrations and photographs should only be sent once a contribution has been accepted.

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Sorviodunum – A Review of the Archaeological Evidence by David J. James¹ with a contribution by David J. Algar²

Evidence is presented of the archaeological finds made since the 18th century through excavation, field walking, chance, and aerial photography. Previously unpublished information from excavations in the 1960s and 1970s is also included. Analysis of the data provides a new insight into the location and possible nature of Sorviodunum. A number of conclusions are drawn, the principal one being that there was a substantial urban settlement in existence from the 1st to the 4th centuries AD. The paper recommends geophysical investigations be carried out to define more precisely the boundaries of this important site.

INTRODUCTION

Considerable uncertainty has always been, and still is, expressed in academic literature as to the location, size and precise function of Roman Sorviodunum. Until the beginning of the 20th century antiquaries firmly believed that the Iron Age hill-fort of Old Sarum (SU 13753268) with its later Norman Castle and Cathedral could also be identified with Sorbiodunum or Sorviodunum of the Antonine Itinerary. This was based upon the belief that Sarum is a corruption of the Roman name and the fact that the site stands beside a strategic nodal junction of Roman roads, where four or more routes converge (Haverfield 1915). Until 1900 less than a dozen small artifacts of Romano-British date had been found at Old Sarum. Extensive excavations in the period 1909 to 1915 by W.H. St John Hope and Lt. Col. W. Hawley revealed only a handful of artifacts and the foundations of a building which might, or might not, have been Roman (St John Hope 1910, 191; St John Hope and Hawley 1911, 517; Hawley 1912 57-9; 1913 101). This led Professor Haverfield to doubt it was the site of Sorviodunum and to suggest it might be located in the valley below Old Sarum at the village of Stratford-sub-Castle. However he admitted that, up to that time, no trace of Roman activity had been found there (Haverfield 1915, 26).

In a review of Romano-British Wiltshire carried out between the First and Second World Wars Mrs Cunnington cited the small number of finds from Old Sarum plus two amphorae supposedly from Stratford-sub-Castle (Cunnington 1930, 203-4). However, writing just after the Second World War the views of Professor Hawkes (Hawkes 1947, 32) and D.H. Montgomerie, a member of Col Hawley's excavation team, were summarized by the latter who thought that:

'it would be most unusual to find a hill-fort succeeded, on the spot, by a regular Roman townthe remains...seem too scanty to suggest a settlement of any great size. There has been a suggestion that the Roman Sorbiodunum may have been on the west below the hill, towards the river Avon near the village of Stratford, but the evidence of finds does not support this strongly either.' (Montgomerie 1947, 134)

Less than a decade later the situation was reviewed again following the unexpected discovery in 1953 of a fairly substantial quantity of Romano-British refuse material as a result of housing

¹Watermead, Mill Lane, Stratford-sub-Castle, Salisbury, SP1 3LJ ²26 Hulse Road, Salisbury, SP1 3LY

development at Paul's Dene (SU 14353225). The finds were made some 450m SE of the Old Sarum East Gate on Bishopdown hillside (Stone and Algar 1955). Despite these finds the paper concluded that there was still no evidence of extensive occupation in the Old Sarum area but suggested that the southwestern slopes of Bishopdown had attracted settlement in the form of a few isolated dwellings during the late 3rd and 4th centuries. The 1955 review was closely followed by an excavation in 1957 inside Old Sarum, aimed primarily at elucidating the continuity of the curtain wall around the outer bailey, but as a by-product considerable quantities of Roman period material were uncovered. The excavation results indicated that occupation of Old Sarum had begun early in the Roman period and was of some consequence, lasting into at least the 3rd century AD (Rahtz and Musty 1958-60). In the opinion of the excavators the evidence reopened the question of the exact location of Sorviodunum. Also in 1957 a water pipeline trench on Bishopdown revealed a number of Roman pits but no structures (Musty 1959, 179).

The pace of finds quickened during the 1960s and 1970s when a number of excavations occurred in Stratford-sub-Castle. A gas pipeline trench in 1969 revealed significant 1st-4th century AD occupation levels and building material scattered over a distance of more than 200m (Algar 1970a). In 1977, following earlier trial trenches across the Roman road to Dorchester¹ (Musty 1958; Stratton 1965, 1966), part of a substantial building was uncovered abutting the thoroughfare. Unfortunately detailed results of the 1969 and 1977 excavations were never published, the latter due to the untimely death of John Stratton the local archaeologist in charge. One of the aims of the present paper is to try and redress this omission by providing a comprehensive summary of the results (see Appendix).

In 1983, as an outcome of a seminar on archaeology and planning, held in the Salisbury Museum in July 1982 for officers of the Salisbury District Council, the Wiltshire Library and Museum Service produced an excellent appraisal of the information then available on the Wiltshire Archaeological Sites and Monuments Records (Borthwick and Chandler 1984).² The authors pointed out that while the evidence for Roman occupation in the Salisbury area was poor there had been sufficient finds to suggest that *Sorviodunum* could be located at any one of three sites. These were Old Sarum; Bishopdown, (spreading SE from the East Gate of Old Sarum); or Stratford-sub-Castle, where finds and land boundaries suggested a possible Roman small town occupying approximately 16ha.

Finally almost 20 years later, in 2001, the Wiltshire Archaeological and Natural History Society has produced a very comprehensive and valuable collection of papers in honour of Ken Annable entitled Roman Wiltshire and After (Ellis 2001). A particularly apposite contribution comes from Mark Corney who examines the nucleated settlements across the county. Using evidence from aerial photographs and excavations he concludes that Sorviodunum was a roadside settlement, rather than a town, with a core area extending for a distance of approximately 500m to the north-east of the River Avon giving a potential area of at least 10ha. The author felt there was the possibility that Sorviodunum could have been an urban settlement similar to those at Cunetio (Mildenhall) and Durocornovium (Wanborough); however further evidence was needed (Corney 2001, 5-38).

Despite the publication of Roman Wiltshire and After it is clear from current literature that the majority of archaeologists are, in general, unaware of the numerous finds. The principal aim of this paper is to provide a sharper focus on the evidence for Roman Sorviodunum, to try and establish its location, extent, type of settlement, and how long it was in existence. The need to carry out a synthesis of all the archaeological data currently available is widely recognized, particularly by the Wiltshire County Archaeology Department who have provided much help and encouragement in writing this paper.

THE EVIDENCE

The archaeological evidence falls broadly into five categories, viz. excavations; field walking; chance finds; aerial photographs; and historical land boundaries. The evidence in each group is described below and analysed in more detail in the discussion section. A chronological summary of the finds is given in Table1.

Excavations

There are problems of definition when dealing with 'excavations', consequently it must be stressed that the events and results described below include formal excavations and small scale trenching as well as watching brief activities conducted during the course of major gas and water pipe-line operations. The evidence is presented under the separate site headings of Old Sarum, Bishopdown and Stratfordsub-Castle.

OLD SARUM

A detailed description of the excavations carried out by the Society of Antiquaries is given by St John Hope and Hawley (St John Hope 1910; St John Hope and Hawley 1911; Hawley 1912, 1913). The work took place in the area of the Norman Castle and in the NE quadrant of the hillfort which included the site of the Norman Cathedral. Professor Haverfield, then a Vice President of the Society, summarized the Roman finds in WANHM. He reported that the only artifacts found were eight or nine coins, all of the later empire and illegible except for a Maximian, some potsherds, a bronze armlet, and other metal trifles, a quern from Andernach, some tiles, three pieces of painted wall plaster, and lastly a piece of wall in situ (Haverfield 1915, 26).

Montgomerie writing some 30 years later gives a summary of the excavation results with certain adjustments 'made possible through personal knowledge'. In particular he gives a detailed description of five late Iron Age/early Roman finds, a bronze belt-link, three bronze brooches and a bead-rim potsherd. He also gives an account of how the section of wall was found and its construction (Montgomerie 1947, 132-47). It was discovered on the old ground surface when two untimbered exploration galleries were dug laterally east and north from an unfinished post-Norman well which had been sunk down to the natural chalk through the material of the Castle Mound.

A pebble floor appeared in the northern gallery above which were occupation layers 0.9m thick containing Romano-British refuse including pottery and a coin thought to be of Maximian. Building foundations were encountered in the eastern gallery. They were bedded about 0.15m below the level of the pebble floor. A further wall core was located at the far end of the gallery some 2.5m after encountering the first wall which ran almost N-S and was traced over a distance of 3.5m to 'an external corner' (Montgomerie 1947, fig. 4). The building was clearly of some size. It was built of ashlar and flints, on a foundation of chalk lumps with a clay and chalk bedding laid on natural gravel. Unfortunately further exploration of the building had to be abandoned due to the extremely hazardous working conditions.

As mentioned above, the principal aim of the 1957 excavations was to ascertain the integrity of the curtain wall around the outer bailey following the earlier excavations from 1909-1915 which had shown that it existed in the NW (Cathedral) sector (Rahtz and Musty 1960). An additional aim was to try and locate a tunnel revealed in 1795 and last seen in the 1820s. The excavations proved that the wall was absent throughout the whole of the NE sector where only a bank was a vestige of the pre-Norman defences. The tunnel was found and appeared to link the outer bailey with the north east exterior of the earthwork. No dating evidence was found but it was thought likely to be of Medieval origin.

The excavations showed that the Old Sarum earthwork was of early Iron Age origin followed by occupation well into the Roman period. A section cut through the bank in the NE sector revealed in the lowest, undisturbed levels, hundreds of sherds covering the late Iron Age and Roman periods (Rahtz and Musty 1960, fig. 9). The earliest were a series of bead-rim vessels, some of pre-conquest 'Belgic' origin. Because there was no stratigraphical division between 'Belgic' and other sherds, identified as Roman, the excavators questioned whether all the sherds were not in fact post Roman conquest. Pottery finds continued with forms from the 1st century AD while the 2nd century was represented by samian ware and coarseware. Occupation continued without a break until at least the late 3rd or early 4th century. There was a total absence of developed New Forest pottery in the trench which suggested that occupation might not have continued into the Constantinian period. However the excavators did point out that a sherd of New Forest pottery was found in the area of the tunnel only 70m to the NW.

In addition to the pottery, the lowest levels of trench B gave up hundreds of pot boilers, several dozen fragments of Roman tile, including four combed pieces and one stamped LHS from Minety (Darvill 1979, 328; 343), brick, part of a block of dressed Chilmark stone, a few fragments of Purbeck or Chilmark roof tiles, and a complete bronze brooch, probably of mid-late 1st century AD. The excavators highlighted the fact that earlier researchers had believed searching for evidence of pre-Norman occupation was likely to be unsuccessful due to the thoroughness of Norman re-construction in obliterating all traces. Their work

Finds
Roman
of
Summary
Table 1

No.	Discovery date	Location	Grid ref. (SU)	Nature of finds	Probable date (Cent. AD)	References
	Before 1771	os	A .	9 coins covering 2nd-4th	2nd-4th	Haverfield 1915, 22-29; Stone and Algar 1955, 119-126, nos 4, 7, 8, 18, 31, 44, 48- 50
2	1854	OS- East Suburb in bank opp. Old Castle Inn	142325	Skeleton in cist surrounded by large flints, iron nails at feet, and pottery in cist fill	<i>c.</i>	Akerman 1855, 182-4
3	c.1857	OS	<u>.</u>	Spoon, padlock spring	<u>^</u> .	WANHM 1857-8, 249
4	1873-1876	SO	<u>ი.</u>	6 coins covering period 287-350AD	3rd-4th	Stone and Algar 1955, 119-126, nos 15, 16, 20, 21, 29, and 30
5	1882	OS	<u>^.</u>	Dupondius of Julia Mamaca	3rd	ibid., 121, no 9
9	1883	SSC-Field under OS	.	Denarius of Septimius Severius	3rd	ibid., 120, no 6
7	1884	OS	1332	Bronze anthropomorphic bucket mount	lst	SM109/1968
œ	c.1890	SSC - In fence line running from OS to SSC	<u>c</u> .	Amphora 840mm high	lst	WANHM 1920, 194; Stone and Algar 1955, 115, fig. 4.1
6	1909-1915	OS - Motte area	13753268	Sherds inc. piece of samian ware, bronze fibula,	1st-4th	St John Hope 1910, 191; St John Hope
				bronze armlet, other metal fragments, quern from Andernach, tiles, 3 pieces of painted wall plaster, 9		and Hawley 1911, 517; Hawley, 1912, 57; 1913, 101; Haverfield 1915, 22-29;
				coins covering late 3rd and 4thC, and a stone wall		Cunnington, M.E.1930, 203-4; Stone and
				and people hoor which might be forman		Augar 1900,124, no. 10, 124, nos 04-41; Montgomerie 1947, 129-39
10	1916	BD-RR near Isolation Hospital	<u>ი</u> .	Denarius of Trajan	2nd	Stone and Algar 1955, 120, no. 3
11	Before 1930	SSC - Field on south side of OS	<u>с</u> .	Amphora 650mm high with a spiral shaped base	<u>.</u>	Curnington, B.H. 1947, 617-8; Stone and Algar 1955-6, 115, fig. 4.2
12	Before 1931	SO	C .	Three 2nd/3rdC coins	2nd-3rd	ibid., 120-121, nos 5, 10, and 11
13	Before 1931	BD-RR to Silchester	٥.	Coin - possibly the same one as at entry 10 above	2nd	ibid., 119, no. 2
14	1931	OS - East Suburb during new main road construction	141326	Coin - Nummus Majorianus of Magnentius	4th	ibid.,124, no. 43
15	1933	SSC end of Butts	139313	Coin of Constans	4th	S.M 234/1933
16	1934	BD – near Bishopdown houses	<u>ი</u> .	Bones and pottery, inc. New Forest ware	3rd?	SM 2001R.54.1=9
17	1935	SSC – new house foundations in Stratford Road	13393208	Reduced Nummus of Constantine I	4th	ibid., 122, no. 19; SM 44/1935
18	1937	SSC – near end of Port Lane	13733198	Antoninianus of Carausius	3rd	ibid., 121, no. 14; SM 29/1937
19	1937	BD – Lime Kilns at Butts Farm	144318	AE3 of Constantine I	4th	ibid., 123, no. 24
20	1937	SSC - Mr Elliott's Garden at Ivy Cottage	13393208	AE4 of Constantine II	4th	ibid., 123, no. 27
21	1938	BD – Garden of 269 Castle Road	14203217	AE of Valens	4th	ibid., 125, no. 46
22	1947	SSC - Post Office Comer	13653189	Denarius of Vespasian (1) and AE3 of Constantine II (2) found during road widening	1st and 4th	ibid., 119, no. 1, 123, no. 25; SM44/1947(1)
23	1950	SSC – meadow west of Stratford Road	13453183	Dwelling site, sherds, oyster shells, animal bones	¢.	SMR SU13SW 35

	3			90				35	p	Γ	6.5		Ģ				.5
SMR SU13SW 35	ibid., 102-126, 119-126, nos 12, 17, 22, 23, 26, 28, 32, 33, 42, 45, 47, 51-53, Musty 1959, 181,187	Rahtz and Musty 1960, 352-370	SM 83/1958	WANHM 1963, 471; Stratton 1966, 106	Stratton 1965, 138 and 1966, 106	Stratton 1966, 106	WANHM 1975-6, 135-6; SM48/1966	Stratton 1966, 106-7; SMR SU13SW 35	Stratton 1965, 138; and 1966, 106-7; Algar 1970a, 208; Moore 1966 26-7 and 1967, 18; SMR SU13SW 35; SM49 and 52/1967	WANHM 1968, 114; Algar 1968, 30	Algar 1970a, 208; Algar and Swaa 1969, 49; Algar 1970b, 29; SMR SU13SW 35	WANHM 1975-6, 136, no. 106	Mr M. Adams, personal communication	WANHM 67, 172-4; Algar 1971, 24; WANHM 68, 134 No 108; Algar and Hadlev 1972, 44	See list in Appendix	WANHM 1975-6, 135, no. 102; SM 124/1974	SMR SU13SW 35. List of coins given in Appendix
1st-3rd	3rd-4th	1st-3rd	4th	lst	1st-4th	İst	C-	1st-4th	1st-4th	<u>^.</u>	1st-4th	4th	4th	3rd-4th	1st-2nd	3rd	3rd-4th
Flints, coarseware, and samian ware pottery, tile fragments and animal bones	Perforated baked clay and stone roofing tiles, considerable quantity of late 3rd to 4thC pottery inc. New Forest fineware, 14 coins, located in refuse layer up 030mm thick indicating nearby unlocated building	Coarse and samian ware pottery, tile fragments inc. one stamped LHS, dressed Chilmark stone, pieces of Purbeck or Chilmark roof tiles, brooch	Coin of Constantine the Great	Line of RR4c sectioned. Badly damaged by Mediaeval and later development	Line of RR4c sectioned, corner stones and knapped flint wall of an abutting building located; pottery inc. samian ware, plaster, animal bones, and iron	Line of RR4c sectioned, series of chalk floors under and on either side of agger, samian and Belgic sherds, nails, yiron and a coin of Domitian	Penannular bronze strip bangle	Line of RR4c, large quantities of sherds, box tile stone toofing tile knapped flint, green sandstone, and plaster indicating site of nearby building	Chalk floors, cobbled area, small oven, 1st-2ndC sherds, samian and New Forest portery, Purbeck stone roofing tiles, hypocaust tiles, 2 very worn 2ndC? coins and a length of road exposed in two places	Pipe trench revealed a ditch containing RB pottery	A section of pipeline trench, just over 210m in length, revealed multi-phased tiled and timber walled structures, wall phaster, 1 st-4thC pottery inc. lead glazed ware, LHS tile and 2 coins (Nero Dupondius and Commodus Sestertius). RR4c sectioned showing buildings right up to the road and collapsing upon it	Coin of Valentinian I	Coin of Crispus	Later period sherds and inhumation found in silt of V-shaped IA ditches	8 coins ranging from Augustus to Faustina I	Barbarous copy of radiate coin	Part of substantial building at least 19,8m long by 6.2m wide with mortared flint walls 0.7m thick abutting RR4c. Considerable quantities of 3rd-4thC sherds, as well as bones, ovster shells, painted
13453178	14353225 (CP)	139328	~	13463180	13603199	13303160	135317 (poss.)	13403175	13503170- 13453180	138327	1333184- 13483171	14023145	13433183	14313247	135317 (CP)	137328	13603199
SSC – meadow west of Stratford Road	BD – Paul's Dene Estate in gardens between nos 14 and 22 Juniper Drive	OS NE sector	BD - 4 Paul's Dene Crescent	SSC west side of Stratford Road	SSC – Theological Playing Field	SSC – Fisherton Meadow	SSC - Post Office Corner	SSC – west side of Stratford Road	SSC – Post Office Corner/Castle Keep Development	OS – East Suburb	SSC – gas pipeline	SSC - 13 Stratford Road	SSC – 9 Castle Keep	BD – Castle Hill Reservoir	SSC - Post Office Corner	OS – near Cathedral	SSC - Theological Playing Field
1950	1953-55	1957	1958?	1962	1964	1965	c.1965	1965	1965-66	1968	1969	1970	1971	1971-72	1974	1974	1977
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41

SORVIODUNUM – A REVIEW OF THE ARCHAEOLOGICAL EVIDENCE

	WANHM 1979-80, 206, no. 135	Mr D.J. Algar, personal communication	WANHM 1990, 229, no. 85	WANHM 1991, 147	WANHM 1994, 155	WANHM 1999, 139; Wessex Archaeology 1997	Mcmahon and Hawkes 1999; 2000; WANHM 2001, 251 Moffet 2001	
	3rd-4th?	4th	3rd	4th	<u>.</u>	<u>^.</u>	lst-3rd lst-4th	
plaster/mortar and 14 coins. The corner of a second building, of similar construction, located on opposite side of RR4c	4 coins	Urbs Roma coin (as LRBC 51)	Coin of Carausius (as RIC 20 1c)	Coin of Constantine I (type RIC 529)	Scattered burnt flint, pottery and tile over c.70ha. Pits, ditches and trackways	Test pitting over 0.7ha revealed worked and burnt flint and pottery fragments, coarseware and a sherd of New Forest colour coated ware	1 we excavators in advance of house construction identified two Romano-British phases. The earliest phase comprised two pits, two postholes, and a soil spread with pottery, including samian, of 1st-2nd centuries. This was sealed by soil horizons and roughly metalled surfaces in a later 2nd-3nd century phase Two small evaluation trenches dug in advance of planning consent for new house construction	revealed evidence of a substantial 2nd-4th centuries building with rammed chalk floor, wall robber trench, and a possible hearth. It overlay boundary ditches from the 1st-2nd centuries. Finds included a fragment of roof tile, part of a fibula and also fine and coarseware pottery of early forms
	143324	13533182	13483180	1332	150323 (CP)	14753267	135319 (CP) 13453185	
	BD – Paul's Dene	SSC – 'Bramdean', Stratford Road	SSC – 1 Castle Keep	SSC	BD	BD	 SSC - New building plot between Roselea and Avonview, Stratford Road SSC - Silverdale, Stratford 	
	1978	1979	1987	1989	1991-2	1997	2001	
	42	43	44	45	46	47	49 49	

Abbreviations: OS - Old Sarum; BD - Bishopdown; SSC - Stratford-sub-Castle; RR - Roman road; BB - Black Burnished ware; SM - Salisbury Museum Accession No.; SMR - Wittshire County Sites and Monuments Record No.

Table 2: Important Archaeological Indicators

	Settlement Type/Size		Defended by earthen bank - 12ha	Extra-mural suburb - 8ha	Street grid and strip	buildings - 16-25ha	
	Unusual	Cotatilica	LHS tile		LHS tile and	Lead Glazed	pottery
		Tessera	z	z	(1)		
		Wall Plaster	Y	z	Υ		
		Hypocaust/ Box Tiles	Y	z	Υ		
	Construction Materials	Ceramic Roof Tiles	Y	Υ	Υ		
	Constru	Stone Roof Tiles	Υ	Υ	Υ		
		$4^{\rm th}$	Υ	Υ	Υ		
	. AD	1 ⁴⁴ 2 ⁷⁴ 4	Y	Y	Υ		
	Coins Cent. AD	2 mg	Y	z	Y		
	Coin	1*	Υ	z	Y		
		New Forest	Υ	Y	Y		
,		samian	Y	Υ	Y		
¢	Pottery	'Belgic' type	Υ	Υ	Y		pottery
	Site		SO	BD	SSC		

had shown that this was not true, at least in the NE sector. They recommended further excavations in order to set Old Sarum in its proper perspective.

BISHOPDOWN

The discovery in 1953 of a diffusely spread Romano-British rubbish dump on the steep slopes of Castle Hill came as a result of residents turning over their gardens on a new housing estate (Stone and Algar 1955). Consequently, rapid investigations had to be carried out which took the form of visual investigations and sampling at various locations. This revealed that the refuse layer was up to 0.3m thick and lay below about 0.2m of ploughsoil. The greatest concentration occurred in the gardens between nos.14 and 22 Juniper Drive. No discoveries had been reported during the construction of the houses.

The finds included baked clay and perforated stone roofing tiles, fairly abundant quantities of unabraded sherds, 14 coins and other domestic rubbish. There were just two samian sherds; one dating to the second half of the 1st century and the other to the first half of the 2nd century AD. The remaining pottery was almost entirely New Forest ware dating to the later Roman period. The coins started with an antoninianus of Tetricus II and continued through until the end of the Roman period. The refuse layer clearly indicated the existence of a nearby dwelling or settlement site, which from the ground contours probably lay higher up the hill to the north, in the direction of the Roman road junction, and could be dated to the 3rd and 4th centuries AD.

During 1957 the Salisbury City Engineers Department initiated a water scheme in connection with a reservoir on Castle Hill, Bishopdown. Several miles of trenches were cut across an area that included the Eastern Suburbs of Old Sarum and Bishopdown. No Roman period structures were revealed in the Eastern Suburbs but on Bishopdown 15 pits of Iron Age/Roman date were sectioned (Musty 1959, 179-82). The paper detailed typical finds from one pit. These consisted of three beadrim sherds and a high proportion of burnished blackgrey and black wares in the lower levels. The upper layers contained early Roman material including samian ware from the third quarter of the 1st century AD and 'a reddish ware with a sandy glitter'. Musty was of the opinion that the date of the whole group of pits might be as late as the 1st century AD.

The paper also took the opportunity to report on further finds made on the Paul's Dene Estate since the earlier ones detailed by Stone and Algar (1955). Subsequent finds had come from points to the north and south of the 1953 rubbish layer and may represent an extension of it. From the garden of 14 Hill Top Way part of a flanged bowl of 2nd century AD date had been found and in the bank on the opposite side of the road a large portion of a jar with a simple everted rim. This was possibly early although with it was a sherd from a New Forest ware thumb pot. Pottery found at numbers 9 and 11 Juniper Drive was all of a late form, including a mortarium with a brown slip and the rims of several jars including a rope rim.

Three Roman roads should pass through the area sectioned by the water pipeline trench. However no road section was positively identified. This was thought to be due to the obliteration of the Roman levels by the present day roads, some of which lie in comparatively deep cuttings. The paper concluded that there was an Iron Age settlement area on Bishopdown that had carried on in a Romanised form throughout the Roman period. Evidence of occupation is estimated to be spread over an area of at least 4ha.

In 1991-2, in advance of proposed land development, AC archaeology conducted a staged evaluation, initially over c.70ha centred on SU150323 followed by geophysical surveying and sample excavation. Features revealed included Iron Age/Romano-British storage pits, ditches, one of which had a substantial V-profile, and trackways. Dense nucleated scatters of burnt flint were located on the gravelly soils of the higher ridge top running towards Old Sarum and near to the earlier finds in the 1950s and '70s (WANHM 1994, 155), In 1997 a series of test pits were dug by Wessex Archaeology for Wiltshire County Council over an area of 0.7ha on farmland to the east of Old Sarum (SU14753267) representing part of the proposed route of the Salisbury Northern Link Road. The finds were predominantly small quantities of worked and burnt flint together with Romano-British and Medieval pottery (WANHM 1999, 139).

STRATFORD-SUB-CASTLE

Over a period of about 15 years, from 1962 until 1977, a number of excavations were undertaken in Stratford-sub-Castle, the archaeological fieldwork being carried out by members of the Salisbury Museum Archaeological Research Group (SMARG). Very brief details of the various pieces of work, except for the excavation of a substantial building in 1977, were given in WANHM and/or the Archaeological Review of CBA Groups 12 and 13 in their notes on excavations during the previous year. In an attempt to clarify the considerable amount of evidence uncovered David Algar, a former Secretary of SMARG, presents a summary report in the Appendix. The main points that emerge are summarized in the following paragraphs.

In the abnormally dry months of May and June 1962 a linear parch-mark appeared between Old Sarum and the Salisbury-Devizes road (Musty 1958, 471). It was sectioned (trench A at SU 13463180) in the meadow on the western side of the Stratford Road. Although the ground had been disturbed, due to the close proximity of the modern road and to the foundations of a minor 13th/14th century building, a new line for the Roman road to Badbury Rings was confirmed (Stratton 1965). In 1964 a second trench (B at SU 13603199) was cut across the parch-mark at the eastern edge of the Salisbury Theological College playing field some 250m NE of trench A (Stratton 1965). It revealed not only the Roman road but also the corner of a Romano-British building adjacent to the western side of the thoroughfare. The building had knapped flint walls and dressed ashlar quoins. The associated finds dated the structure to the 3rd/4th century.

Two further trenches (C and D at SU 133033160 and 13403175) were dug across the parch-mark line in 1965, one in Fisherton Meadow on the west side of the river Avon and the other in the same meadow as the 1962 section (Stratton 1966). The trenches were 260 and 80m SE of trench A respectively. The height and width of the agger and the separation of the side ditches were the same in both trenches. The Fisherton Meadow cut revealed a series of chalk floors running up to and part way under the agger and together with the occupation debris suggested that the road constructors had lived alongside the road in the last quarter of the 1st century. Trench D, 80m SE of the 1962 dig, produced large quantities of sherds, but in contrast to the finds from the Fisherton Meadow trench they ranged in date from the 1st to the 4th centuries AD. Box tile, stone roofing tile, knapped flint, greensand fragments and plaster were also found suggesting the presence of a substantial building close to the road.

In the second half of the 1960s a new housing site (Castle Keep Estate) was developed at the NE end of the meadow in which trenches A and D had been excavated. The construction work revealed considerable evidence of settlement, chalk floors, a cobbled area and a small oven. Two sections of the Roman road to Badbury Rings (Margary 1955, Roman Road 4c) were again exposed revealing its construction of hard-packed flints with layering suggesting many resurfacings (Moore 1966, 26-7). Other finds included 1st/2nd century AD samian ware and coarse pottery which was mainly 'Belgic' and Durotrigic derived wares and included a small quantity of 3rd century New Forest wares. In addition there were two very worn coins, probably of late 1st century AD date, Purbeck stone and ceramic roofing tiles, hypocaust tiles, and a slab of polished Purbeck marble.

During 1969 a North Sea Gas pipeline trench was dug across the meadows to the SE of the Stratford Road and the Castle Keep Estate cutting the Roman road at right angles at a point 20m NE of the 1965 trench D. Occupation debris was located along a length of over 200m and for 65m of this distance the trench revealed multiphased tiled and walled structures of timber and flint, some with plastered walls and with at least four super-imposed floor levels. Structural material included imbrices, hypocaust tiles, a tile stamped LHS and a fragment of window glass. A large quantity of pottery, dating from the 1st to the 4th centuries AD, was recovered (see list at Appendix). This included sherds of samian, New Forest and Oxford wares, an amphora fragment and lead glazed wares. A dupondius of Nero and a sestertius of Commodus were also found. From the north end of the section, some 25m from the Roman road, a pit yielded a 3rd/4th century AD group of pottery and fragments of imbrices and painted wall plaster.

In 1977 it was decided to explore further the building found at the edge of the Roman road in 1964 (trench B). A substantial structure, 19.8m long and 6.2m wide, was excavated. It had its long axis at right angles to the Roman road, rammed chalk foundations about 0.5m deep and 1m wide and walls with mortared flint and ashlar dressings. The internal structures, while confusing, did reveal a hearth or furnace in the SE end and a cobbled surface at the NW end. About halfway along the SW side of the building an external wall was found at right angles suggesting another room or structure. Three coins were found inside the building, an antoninianus of Gordian III, an irregular radiate and a very worn 4th century AD bronze, which together with a further 11 found outside indicated a likely 3rd-4th century date.

Evidence for a second structure with chalk foundations/floor and flint walls was found on the

opposite side (SE) of the road just beyond the agger side ditch. It would appear that lack of time precluded any further investigation and the whole site was backfilled.³ At the time the excavator was of the opinion that the building was a *mansio* for travellers.⁴ Given the apparent large urban nature of the site it is more than likely that it is a typical strip building (Burnham 1987, 176) housing either a shop, workshop, or light industrial activity. The second building, located on the other side of the road and also right up against it, may well be of a similar type in view of its close proximity. In 1999 in advance of new housing construction in the Stratford Road, on land between Roselea and Avonview (SU 135319 CP), an archaeological evaluation was carried out followed by full excavation (McMahon and Hawkes 1999; 2000; WANHM 2001, 251). Two phases of Roman-British activity were identified on the site which lies some 25m west of the Roman road 4c. The earlier phase comprised two pits, two postholes and a soil spread producing finds including 1st-2nd century pottery. Some 7% of the 341 sherds found were samian, the majority of Cental Gaulish origin, and

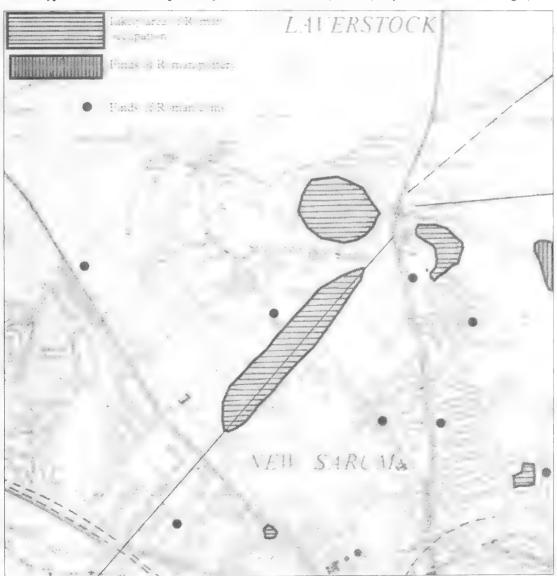


Fig. 1. Map showing extent of Roman period finds and road system (Ordnance Survey base, Crown Copyright)

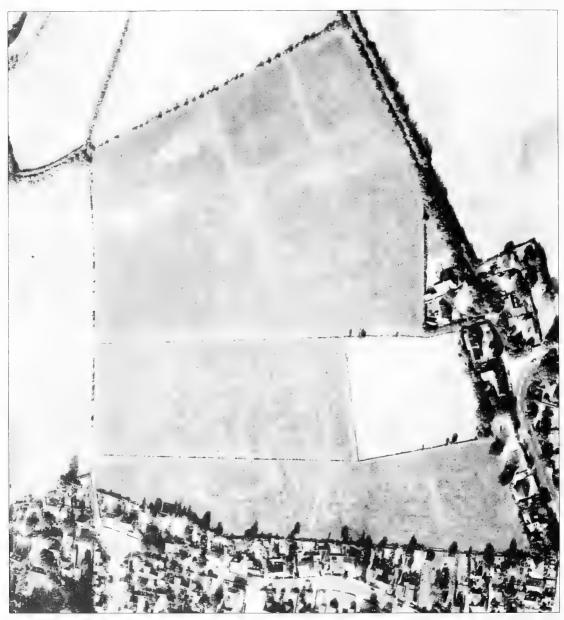


Fig. 2. Potential street grid at Stratford-sub-Castle (AP No. NMR 15365-61)

include a complete stamp of the Lezoux potter LOLLIVS. Only one sherd pre-dates *c*. AD 70. The postholes appeared to respect the alignment of the nearby Roman road. These features were sealed by a later phase of soil horizons and roughly metalled surfaces of flint nodules or chalk rubble thought to be external yards to buildings. This phase yielded 2nd-3rd century AD pottery with just one sherd of possible 4th century origin. The amount of ceramic building material found was small but included a piece of roof tile and four fragments of box-flue tile. The latter items suggest the presence of a fairly high status building in the vicinity, containing either a vault or rooms heated by a hypocaust system (Mcmahon and Hawkes 2000, 18).

Most recently in 2001, in advance of planning consent for the construction of a new house at Silverdale in the Stratford Road (SU 13453185), two small evaluation trenches were machine dug. They were some 20m to the south-west of those

carried out on the opposite side of the Stratford Road in 1999 and about 30m from the edge of the Roman road. The deposits in the trenches revealed intensive occupation and development throughout the Roman period with finds suggesting possible continuity from the Late Iron Age. There was evidence of a substantial 2nd-4th centuries AD building, with rammed chalk floor, a wall robber trench, and a possible hearth, overlying boundary ditches of 1st-2nd centuries AD origin. The robber trench appeared to respect the alignment of the nearby Roman road. Finds included a fragment of roofing tile, a piece of fibula and about 50 sherds of pottery. The pottery assemblage included samian ware, colour-coated ware, and coarsewares and was predominately early Romano-British. Characteristically later fineware fabrics, such as New Forest or Oxfordshire, or later vessel forms were not recorded. Amongst the coarseware were sherds of a very dark grey sandy fabric that may represent the continued use of Late Iron Age pottery in the area.

Field Walking

There would appear to have been very little systematic archaeological field walking carried out over the years in the areas of Old Sarum, Bishopdown and Stratford-sub-Castle, except by the Ordnance Survey. In 1950 an Ordnance Survey Field Investigator examined the meadow south-west of the Stratford Road in Stratford-sub-Castle, which had just been ploughed for the first time in living memory and where trenches A and D were subsequently dug in the 1960s. He reported the discovery of a Romano-British dwelling site at SU13453178 where he found a patch of flints 5m in diameter amongst which were a number of coarse Romano-British wares, animal bones and tile fragments.⁵

The Investigator dug a small trench in the centre of the patch of flints and recovered coarse grey and black wares, several sherds of plain samian, fragments of brick, mortar and combed box flue tile, animal bones and oyster shells. Nearly all the finds were confined to a layer of clay and flints 0.4m thick immediately under the ploughsoil. Also present was a 0.1m thick layer of broken chalk which began just below the plough-soil then dipped away sharply at an angle of 20 degrees to the horizontal until it met a hard flint pebble surface underneath the finds. The solid layer of flint pebbles was set in a hard mortar-like matrix suggesting some kind of hard standing or courtyard near a building. Passing this site about 10m to the west was a line of flint gravel 3m wide (SU13413186-13444176) amongst which the Investigator found a number of coarse Romano-British sherds and tile fragments. In addition the area centred at SU13453183 produced surface finds of Romano-British sherds, oyster shells and animal bones.⁶

During the late 1990s the author conducted a limited amount of field walking in the Stratfordsub-Castle area. This was confined to those fields to the east and west of the Roman road from Old Sarum down as far as the River Avon in the valley below and across on the opposite side of the river up as far as the Devizes Road on the SW ridge. Surface finds of Roman period material were scattered on either side of the Roman road for a distance of nearly 1km (Figure 1). The precise limits of the lateral spread were more difficult to pinpoint but appeared to range between 50 and 150m on either side of the Roman road.

Chance Finds

Numerous small finds have been made in the three areas under consideration over a period of nearly 230 years since the first recorded ones in about 1771 (Haverfield 1915, 24). The majority of discoveries are not surprisingly coins (see Table 1, 1, 4-6, 9, 10, 12-15, 17-22, 25, 27, 30, 33, 35-37, and 39-45). These are examined in more detail in the discussion below.

A single inhumation burial, attributable to the Roman period, was found in 1845 outside Old Sarum a short distance from the East Gate. Three other 19th century finds made in the same area were a spoon and a padlock spring of unattributable date, and a bronze anthropomorphic bucket mount dating to the 1st century (Table 1, 3 and 7). There is also a deposit of Romano-British bones and pottery in Salisbury Museum which was found on Bishopdown in 1934 approximately 90m from Bishopdown Houses (Table 1, 16).

Two almost complete amphorae (Table 1, 8 and 11), both recorded as originating from the fields to the south of Old Sarum, have produced considerable debate as to their authenticity (Stone and Algar 1955, 106). The first, which is on display in Salisbury Museum, is a normal specimen dating to the Augustan or Claudian period and the second, which is in Devizes Museum, has an unusual corkscrew-like base with no known parallels and

may not be Roman. While researching the background to these items the author was fortunate enough to come across a document in the Salisbury Museum archives which casts further light on their own specimen.⁷ It was a letter sent to the Museum Curator in May 1935 by Lt. Col. J. Benett-Stanford of Tisbury explaining that it was he who was responsible for discovering it and not his father. He then went on to report that:

An old rubbish dealer half way down the street opposite the Museum front door had this stored away at the back of his shop. He told me that when a keeper some years before (this conversation was c1895) was digging out a ferret in the big fence line that runs from Old Sarum to Stratford-sub-Castle he came across this vase and dug it out.

Given the large banks on either side of the trackway from Old Sarum down to Stratford-sub-Castle (The Portway), which even today are densely filled with rabbit burrows, coupled with the substantial evidence of Roman period occupation in the area close by, the story of this particular find now seems more plausible.

A number of significant discoveries occurred in the 1960s at Stratford-sub-Castle during road widening and housing development in the area of the Old Post Office (SU 135317) and the new Castle Keep Estate (SU 13453180). The finds were made between November 1965 and January 1966 and were deposited in the Salisbury Museum under accession nos 49/1967 and 52/1967 (Table 1, 33 and Appendix). Other finds include a penannular bronze strip bangle found in soil removed from Stratford-sub-Castle (SU 135317) in about 1965 and a number of individual coins in addition to those found during the course of excavation (Table 1, 30, 31, 33, 35-37, and 39).

Aerial Photography

The evidence from aerial photography has proved extremely valuable. Examination of the English Heritage National Monuments Records collection at Swindon revealed a number of important features. First the line of the Roman road from Old Sarum to Badbury Rings could be picked out on many of the photographs taken over the last 75 years. It was in fact discernible on one of the earliest, taken in August 1929, and which came from the Crawford Collection (CCC 8950/ ORACLEE 1). The feature was not recognized at the time probably because it was firmly believed that the Roman road to Badbury Rings followed the line of lane called The Portway down into the

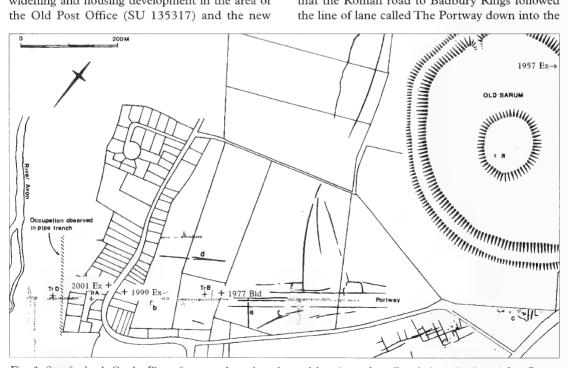


Fig. 3. Stratford-sub-Castle. Plan of crop and parchmarks, and locations of small-scale investigations (after Corney 2001, fig. 2.7 with additions by the author)



Fig. 4. Part of Stratford-sub-Castle 1840 Tithe Award Map. The diagonal line added to the map shows the course of the Roman road

village of Stratford-sub-Castle. While most of the photographs provide some small clues to the archaeology of the area the most valuable ones were taken in the very dry summers of 1975 and 1995 (NMR 881/319, 881/321, 881/324 and NMR 15375-16, 15365-61). These show not only the Roman road but also what would appear to be elements of a laid out street grid system and buildings (Figure 2, NMR 15365-61).

Mark Corney has plotted evidence of cropmarks and parchmarks from air photographs of Stratfordsub-Castle taken in the late 1980s and early 1990s (Corney 2001,19-21; Fig. 2.7). He suggests that although the marks are fragmentary they are sufficient to indicate there may be a core area of *Sorviodunum* with a planned, regular grid (Figure 3). In addition the photographs show other rectangular areas of parching close to the line of the Roman road 4c which could be interpreted as the floors of Roman structures and also two ditches (Figure 3, d and e) that might have been elements of a defensive system around the settlement at some period (Corney 2001, 21-2).

Land Boundaries

Examination of the Tithe Award Map for 1840 shows that a number of field boundaries in the Stratford-sub-Castle area are aligned with the Roman road (Figure 4). In particular fields numbered 68 and 69, and also possibly 62 and 63, exhibit the general shape and dimensions of early Roman forts. Another interesting feature is the strip fields numbered 79, 80, 81, and 113 lying virtually at right angles across the line of the Roman road. They could be remnants of the early land boundaries that are also shown on sketch plans of burgages in the period around or before 1700 (Hill 1962, 66).

DISCUSSION

Key Archaeological Indicators

Earlier attempts by researchers to identify the location and function of *Sorviodunum* were

frustrated by a shortage of archaeological material (Frere 1967, 274; Burnham and Wacher 1990). The 1983 review (Borthwick and Chandler 1984) concluded that any one of the three sites currently under examination – Old Sarum, Bishopdown, and Stratford-sub-Castle – could have been Roman *Sorviodunum*, while more recently Stratford-sub-Castle has been considered the likely focus of the settlement (Corney 2001). Careful examination of all the evidence presented in the previous section enables a clearer picture to emerge.

In Table 2 a number of key archaeological indicators for the three sites are compared. From it the following points can be made:

1. Settlement appears to have occurred throughout the Roman period at Old Sarum and Stratford-sub-Castle and there is some evidence to suggest that Old Sarum may have been occupied at the time of the Conquest but possibly not so intensely in the later Roman period.

2. Finds of construction materials and structures of some consequence indicate there was a substantial settlement at Stratford-sub-Castle and the likelihood of a similar one at Old Sarum.

3. The evidence from artifacts, and building debris, together with elements of a street grid shown on aerial photographs of Stratford-sub-Castle suggests a degree of planning and the presence of an urban or 'town' settlement.⁸

4. Although only a small amount of early occupation material has been found on Bishopdown, in the later Roman period settlement appears to have been flourishing and was probably a suburb or extra-mural part of the 'town'. It was possibly focussed alongside a road/trackway leading south-east towards the New Forest (Stone and Algar 1955, Corney 2001).

5. The area covered by the three sites discovered so far is considerable, between 36 and 45ha.

The conclusions reached above are necessarily tentative. However, analytical techniques and research studies can assist in clarifying the picture further. Perhaps one of the most useful ones is the relatively recent development of a more sophisticated method of analysing coin losses at individual sites compared with the mean over the whole of the country (Reece 1991, 1993, 1995). Analysis by Reece of the coin loss at 140 sites in Britain has shown that particular types of sites exhibit similar cumulative frequency loss profiles. He found that towns had a different loss pattern from other more rural settlements while those in eastern Britain were in turn different from the ones

Period No.	Date	Old Sarum	Bishop- down	Stratford sub Castle	Total
1	to 41AD	-	-	2	2
2	41-54	-	-	1	1
3	54-68	-	-	1	1
4 5	69-96	-	-	4	4
5	96-117	2	-	1	4 3
6	117-138	1	**	-	1
7	138-161	1		2	3
8	161-180	-	-	-	-
9	180-192	-	-	1	1
10 .	193-222	2	-	1	3
11	222-238	1	-	-	1
12	238-260	-	-	2	2
13	260-275	3	1	11	15
14	275-296	3	1	2	6
15	296-317	1	~	-	1
16	317-330	2	3	4	9
17	330-348	2 .3 2	2	3	8 5
18	348-364	2	2	1	5
19	364-378	-	2	2	4
20	378-388	1	1	-	2
21	388-402	2	3	-	4 2 5
Totals		24	15	38	77

in the west of the country.^o In addition forts, temples and villas each had their own distinctive individual profiles. A final group, called 'bad' towns, showed maximum coin loss in the later 4th century as opposed to the almost equal coin loss in the 3rd and 4th century exhibited by the 'good' towns.

The total recorded number of coins found at the three sites under examination in the present study is 93. Of these 16 could not be positively dated. Although the remaining 77 coins is a relatively modest figure (Table 3) it compares quite favourably with the small numbers found at eight of the 140 sites examined by Reece (1991). A cumulative frequency analysis was carried out on the data and the result is presented in Figure 5. This shows clearly that the coin loss profile for the three sites taken together is broadly in agreement with the average for a 'good' Western town but not with that for a Western settlement or a 'bad' town. Examination of Table 3 shows that the coin losses in the 3rd and 4th centuries AD are broadly comparable.

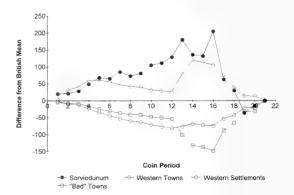


Fig. 5. Coin loss profiles

Researchers have also been developing methods of differentiating classes of Romano-British sites from their finds assemblages (Allason-Jones 1988, Cool 1995, Cool and Baxter 2001, Evans 2001). Evans has carried out a functional analysis of the pottery used at different types of sites by examining the percentages of dishes/bowls, jars and drinking vessels present. This kind of analysis has shown that the levels of use of these three categories of pottery differ between rural and urban sites (Evans 2001, 26-31 and figs 4-9). At urban sites in the southwest of Britain the percentage of jars is less than dishes/bowls. This contrasts with rural sites where jars predominate (Evans 2001, fig. 6). Examination of the Sorviodunum pottery assemblages shows that jars account for around 27% and dishes/bowls 60%, strongly suggesting an urban rather than a rural settlement.

Settlement Functions

Having established that *Sorviodunum* was an urban settlement there remains the question of what were the likely functions it performed and the sequence of events leading to its formation. As far as functions are concerned there are four possibilities:

One, the settlement served the surrounding area as a local market/trading centre to which the rural populace brought their produce and goods to barter or trade and came to procure items for sale or exchange. Farmsteaders and villagers from surrounding sites, for example the 'village' settlement recently excavated at Butterfield Down (SU 166414) 10km to the north (Rawlings and Fitzpatrick 1996), and from Boscombe Down (SU 189394) 9km to the east (Richardson 1951), would almost certainly have used it. In addition people living further afield would have travelled to *Sorviodunum* depending upon the types of goods available and the distance to their next nearest town in the opposite direction.¹⁰

Two, the town acted as a regional administration center for the Roman authorities.

Three, it provided a stopping off point and communications centre for the large volume of traffic travelling along the Roman roads that converge at *Sorviodunum*. Part of the traffic would have been due to the movement of goods, particularly pottery from the New Forest (Fulford 1975, 120) and the Poole Harbour area. It has been shown that *Sorviodunum* was on one of the major corridors for the movement of South East Dorset Black Burnished ware north through to Silchester and London (Allen and Fulford 1996). In addition stone and other building materials, including lead from the mines in the Mendips on its way to both British and Continental destinations, would have passed through.

Four, the town would, in common with most other 'small' towns in Roman Britain, have been a centre for light industry whether manufacturing metalware, leather or other goods (Burnham 1995, 10).

Of the four functions the only one with which there is uncertainty is number two. However Wacher (1995, 206-7) has pointed out that even in small towns there must have been official, or quasi-official, buildings such as *mansiones*, *mutationes*, granaries, stores-buildings for collecting taxes in kind and residences for the different kinds of regionarii and possibly public facilities such as baths, amphitheatre, or a temple. It has already been suggested that there might have been a temple on Old Sarum (Stone and Algar 1955, 104). However, further excavations/finds are needed in order to establish if any such official types of building were present.

The sequence of events that led up to the establishment of an urban or town settlement must be a matter of some conjecture. At the Conquest there appears to have been a number of sites occupied locally by Iron Age tribes including Old Sarum, Bishopdown, Highfield (Stevens 1934), and Boscombe Down (Richardson 1951). Smith (1987, 6) and Webster (1993, 145) were both of the opinion that the military would have set up a fort, however temporary, giving as an indicator the find of early samian ware. Webster also believed (1993, 145) it would have been located at the crossing of the river Avon in Stratford-sub-Castle. Frere (1975, 7) in his paper on the origin of small towns concluded that the great majority in Roman Britain owed their sites to official action. The coin analysis provides additional support since most 'good' Western towns (Reece 1993, 865) appear to have military origins. Possible further support for the military fort theory also comes from the shape of the field boundaries in Stratford-sub-Castle located close to the river and the crossing point of the Roman road (Figure 4).

Settlement Growth and Size

The setting up of a military fort could have quickly resulted in a civil settlement or *vicus* being established alongside, providing shelter and housing for supporting staff, camp followers and people trading goods. Some of these individuals would have come from the surrounding Iron Age settlements, and others from further afield. Once established the growth of a settlement would have depended principally on economic forces (Wacher 1998, 102). Other factors would have included the level of military presence, construction of the London to Dorchester road, and the amount of official activity taking place in the area (Burnham and Wacher 1990). The apparent laying out of a street grid in the settlement suggests at least some degree of Romanization and deliberate planning which is seldom seen at less important settlements (Burnham 1987, 167).

By the 2nd century many small and most large towns had constructed an earthen and/or a walled defence around part of the settlement (Millett 1990). In the case of Sorviodunum the more easily defendable area of Old Sarum would have been invaluable during times of trouble or unrest. So far no remains of an earth bank have been discovered in Stratford-sub-Castle although there is some evidence of ditches c.6m wide on the north and south sides of the settlement (see Appendix below). These are in addition to the two features identified on aerial photographs as ditches by Corney (2001) and mentioned above (Figure 3, d and e). The close proximity of Old Sarum, Bishopdown, and Stratford-sub-Castle to each other (Figure 1) coupled with the fact that Old Sarum and Stratfordsub-Castle both lie alongside the Silchester to Dorchester Roman road leads to the conclusion that all three 'sites' formed part of the Sorviodunum settlement.

The overall size of Sorviodunum could well have changed during the course of the Roman period. Most of the larger 'small' towns appear to have had an area of between 4 and 14ha enclosed by a defensive earth bank or wall (Todd 1970, 116; Millett 1990, table 6.4). The maximum area of land available for settlement inside the Old Sarum earthwork is 12ha. For the remainder of Sorviodunum the evidence currently available suggests Romano-British occupation in Stratfordsub-Castle covered at least 16ha and may have been as much as 25ha while that on Bishopdown was 8ha or more. These figures could well be an underestimate of the actual size, but without further excavations or geophysical investigations it is impossible to be sure. Work elsewhere has shown that the extent of extra-mural settlement can be considerable. For example the 'small' RomanBritish town of *Durobrivae* in Cambridgeshire stretches for some 3km along Ermine Street when extra-mural areas are taken into account (Mackreth 1995). *Sorviodunum* might have had additional extra-mural suburbs, possibly on the land to the NE of Old Sarum¹¹ or the areas covered by the settlement site at Highfield 0.6km south (Stevens 1934) and the one in the vicinity of Moberly and Netheravon Roads 1.3km SE (Stone and Algar 1955, 110). The latter two sites could well have extended further than the areas already discovered. At this stage it is not possible to determine if the intra-mural area of the town was inside Old Sarum or at Stratford-sub-Castle or whether it was at both.

End of the Roman Period

So far no evidence has been found to determine the fate of Sorviodunum at the end of the Roman period. Opinion is divided as to the likely scenario in Britain after military withdrawal. Some experts believe that there was almost complete collapse in the face of Saxon incursions into Britain (Esmonde Cleary 1989). Others postulate that the way of life in existence at the end of the 4th century continued with little change well into the Saxon period (Dark 2000). Corney (2001, 22) has pointed out the fact that Sorviodunum is one of the few places in Wiltshire which features in the historical Anglo-Saxon record¹² implying there was still a sub-Roman population and authority in the Salisbury area in the mid 6th century AD. Excavations at Butterfield Down, 10km to the north, indicate that the 'village' was still functioning at the beginning of the 5th century with 9% of the coins coming from the period AD 388-402 (Rawlings and Fitzpatrick 1996). The coin loss for the same period at Sorviodunum was nearly 7% suggesting that occupation also continued into the early 5th century.

WAY AHEAD

The importance of towns, particularly those that have until recently been classed as 'small', in Roman Britain has been stressed on many occasions, most recently in Brown (1995). Very few sites have been extensively investigated even when they are still open fields. One of the major problems is that vernacular buildings in small towns often leave little trace of floors or foundations. This is because the depth of stratified deposits is often very small compared with that in large towns and cities, and deep ploughing has often eroded open-field sites (Wacher 1995). The area of *Sorviodunum* lying above the present River Avon flood plain has been seriously affected by this problem and in addition by Medieval settlement activities. However that part of the site located between 200 and 300m on either side of the river Avon is likely to be less disturbed with the Roman levels starting at a depth of 0.6m and going down to at least 1.4m or more.

Looking to the future, because Sorviodunum appears to have been a substantial town settlement in the Roman period, there is an urgent need to preserve and protect those areas of the site which have so far escaped the ravages of development and are not already scheduled. The on-going debate over Romano-British wealth distribution and the 'ownership' of land in the Salisbury Plain area and whether it formed part of an Imperial Estate (Hingley 1989; Frere 1967, 274f) would suggest Sorviodunum may have held an unusual, if not unique, position as an urban settlement in Roman Britain. There is little doubt that the site of Sorviodunum offers enormous potential for further research (Corney 2001, 23). Only detailed investigations will elucidate the precise role and functions played by Sorviodunum throughout the Roman period.

CONCLUSIONS

The archaeological evidence suggests there was extensive occupation at Old Sarum and Stratfordsub-Castle throughout the Roman period. Because of their close proximity the two sites together with that on Bishopdown must be considered as all forming part of Roman *Sorviodunum*. Occupation at Old Sarum covered a maximum area of 12ha and at Stratford-sub-Castle between 16 and 25ha. The urban settlement straddles the main Roman road from Silchester to Dorchester for over a kilometre and would have had the status of at least a large 'small' town. At this stage in our knowledge the settlement on Bishopdown can be best considered as a suburb or extra-mural area of the town.

The complete range of functions carried out at the urban settlement is still far from clear. However as a minimum it would have provided an important market facility for the considerable number of settlements in the surrounding area; acted as a

strategic centre for traffic using the Roman road network; and almost certainly housed a local administration unit for collecting taxes and ensuring the laws and edicts of the Roman authorities were carried out. Any further insight into the life and times of Roman Sorviodunum will have to await more detailed investigations in the future. There is an urgent need to progress these investigations in the light of the ever-increasing pressure from land development. In the short term, surveys of a geophysical nature could assist in establishing the extent of the site and could lead to a structured, longer term, programme of protection and study. On the evidence gathered during the present research Sorviodunum appears to have been a much larger and more important Romano-British site than had been realised previously.

APPENDIX by David J Algar

Excavations and finds in Stratford-sub-Castle 1962-77 carried out by SMARG

1962-1965

During the abnormally dry May and June in 1962, John Stratton noticed a linear parch-mark in the fields between Old Sarum and the Salisbury-Devizes road. In Stratford-sub-Castle this parchmark was approximately 65m north of the accepted line for The Portway, the Roman road from Old Sarum to Badbury Rings and thence to Dorchester (*Durnovaria*) as shown on the Ordnance Survey maps. The line of this road had been assumed to be the same as that of the trackway which ran from near to the Old Castle Inn, in part as a hollow-way, down to the Stratford-sub-Castle road. It appeared to follow this road as the mid-part of a double dogleg for about 90m before crossing old water meadows and then the River Avon.

The parch-mark revealed in 1962 showed up very clearly as a straight line on the Old Sarum side of the river and also on the opposite bank. However, half-way up the hill towards the Devizes Road, the line became less distinct, appearing to take a less steep route than the shortest one. At the Avon, the line of the parching crossed the river at a small island called, because of its shape, Tadpole Island. As it

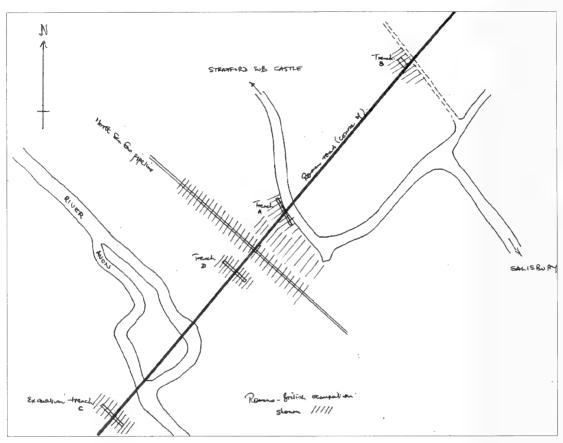


Fig. A1. Location of various trenches dug in the 1960s

seemed very likely that the parch-mark was the true line of the Roman road. John Stratton decided to see if this could be demonstrated by excavation.

A trial trench (A) was cut in the meadow, across the parch-mark at the western side of the Stratford Road at SU 1346180 (Figure A1). The siting of this trench proved to be unfortunate. The new line for the Roman road was confirmed by the sectioning of the road agger. This however was rather disturbed through its proximity to the modern road and by the fact that it had formed the foundation for a minor 13th/14th century building (Musty 1958, 471).

In October 1964 permission was obtained to cut a trench across the parch-mark line at the eastern edge of the playing field used by the SalisburyTheological College. This, trench (B) was on the Old Sarum side of the Stratford Road at SU 13603199. At a depth of 0.38m below the present ground surface was a layer of fine rolled flint overlying a layer of large flints which were in turn bedded in more fine gravel. Below this there was another layer of large flints set directly on the river gravel subsoil. The agger survived 0.41m in height and 6.40m wide. On either side were large flints forming a kerb to prevent the agger material spreading. Outside the kerbs were small side ditches 0.38m wide and 0.28m deep. An unabraded samian sherd was found in one of the ditches. The width of the road including the ditches was 7.16m. The road surface had been lost through ploughing activity so there was no evidence of rutting or wear. Adjacent to the road on the NNW side was a corner of a Romano-British building with knapped flint walls and dressed ashlar quoins. From the associated finds (pottery, ironwork, iron? slag, plaster and animal bones, etc.) it has been possible to date the structure to the 3rd/4th century. The building foundations were in part across one of the side ditches so that it clearly post-dated the construction of the road. Excavations in 1977 subsequently investigated the building further. At present it is impossible to say when the road went out of use (Stratton 1960, 138)

Two further trenches were dug in 1965, Trench C was located in Fisherton Meadow on the west side of the river Avon at SU 13303160. The agger was located almost immediately. At no point was it more than 0.25mm below the present ground surface. Its surface was of fine rolled flint above river gravel interspersed with larger flints in two layers. The average depth of the agger was 0.56mm and the width 7.32m with a small drainage ditch on each side. On each side at 12.8m from the centre of the agger there were two larger side ditches. Within these outer ditches was a series of chalk floors which ran up to and part way under the agger. The presence of the floors and the occupation debris associated with them (samian and 'Belgic' sherds, nails, and some indeterminate fragments of iron), suggested that the road constructors had lived alongside the road. One coin, an as of Domitian minted in AD 84 and in fine condition, was most probably lost in the last quarter of the 1st century.

Trench D was at SU 13403175 in the centre of the meadow, which had been the site of the first trench (A). Here the height and width of the agger and the separation of the side ditches corresponded to those found in trench C. Again there were large quantities of sherds but in contrast to the pottery from trench C, the date range was from the 1st to the 4th centuries. Box tile, roofing tile, knapped flint, greensand fragments, and plaster were also found suggesting the presence of a substantial building close to the road.

A sectioning of the bank at SU 13503170 on the line of the Roman road shown on the Ordnance Survey maps revealed that it was an earthen bank associated with three 18th century cottages; there was also a stone conduit of similar date. Apart from a single very abraded samian sherd all the pottery was of the 18th century. Recent housing development at Castle Keep Estate on part of the meadow in which trenches A and D were located revealed much evidence of settlement, chalk floors, a cobbled area and a small oven. A length of Roman road was also exposed. The finds included 1st/2nd century samian ware and coarse pottery (mainly Belgic and Durotrigic derived wares, but including a small quantity of 3rd century New Forest wares), two very worn coins, probably of the late 1st century, Purbeck stone and ceramic roofing tiles.

There were numerous fragments of roof and hypocaust tiles, and a small slab of polished Purbeck marble. Samian ware included a number of early forms of Flavian date and a retrograde stamp BELINICI M (Belliniccus of Lezoux, fl. Trajan-Antonine). Other pottery was probably of 1st/early 2nd century; only two sherds of New Forest ware were found. Subsequently further samian ware, including a nearly complete platter of Dragendorf Form 32 and the rare potter's stamp CRESIMI (Cresimus of Montans, fl. AD 80-120), were discovered.

1969 NORTH SEA GAS PIPELINE TRENCH

In 1969 the meadow to the west of the Castle Keep Estate was crossed by a North Sea Gas pipeline trench and as a result the Romano-British settlement bordering the Roman road was sectioned from north to south over a distance of about 100m (SU 13363187-13473170). Along 65m were multiphased tiled and walled structures of timber and flint, some with plastered walls and with at least four superimposed floor levels. Building debris was found scattered for over 200m. A large amount of pottery (see list below) from the 1st-4th centuries AD was recovered including New Forest and Oxfordshire wares, an amphora fragment and lead glazed wares. Samian sherds included the forms Drag. 18, 27, 37, 38, and 45 bat's head spout. A dupondius of Nero AD 64-68 and a sestertius of Commodus (Rome mint AD 187-188) were also found.

A pit, from the north end of the section, approximately 23m north of the Roman road, vielded a 3rd-4th century group (see list below). Part of a tile stamped LHS was found on the spoil heap. The sandy terracotta coloured fabric had a smooth upper surface and underneath were the marks of two areas of mortar: had the tile been complete (260 x 410mm) there would probably have been three. Part of another LHS tile was recorded from the Outer Bailey of Old Sarum (Rahtz and Musty 1960, 366; Darvill 1979, 328, 343). The Roman road c.6m in width had buildings right up to its edge which had ultimately collapsed on to it. The site is possibly delimited by ditches approximately 6m in width on the north and south but the water table was too high to be sure.

List of pottery and other finds based on field notes by Mrs V.G. Swan

UNSTRATIFIED MATERIAL RECOVERED FROM THE TRENCH Samian

Dragondorf 45 bat's head spout and Drag. 38. Probably late 2nd or early 3rd century.

- Drag. 18 and small Drag. 27. Flavian or possibly pre-Flavian.
- Base fragment Drag.37. 2nd century.
- Drag.?/Walters form. Probably late 2nd century.
- Two other samian sherds. Probably 2nd century.

Coarse Pottery (NB Black-Burnished could include imitations).

- Three B-B plain dog dishes
- One as above with looped trellis decoration
- Fragment B-B cooking pot with double oblique-angled lattice. Late 3rd-4th century.
- Rim fragments of two miniature B-B cooking pots. Hadrianic/Antonine.
- Fragments of three B-B 'bead and flange' pie dishes. Late 3rd-4th century.
- Fragments of one B-B pie dish. Hadrianic/Antonine.

Grey Wares (Most probably of New Forest origin).

Fragment of roll rim, storage jar. NF. 3rd-4th century

Fragment of dog dish. NF. 3rd-4th century

Neck of NF coarse grey jug. 3rd-4th century

Fragment of body of above. 3rd-4th century

- Fragment of grey ware cooking pot with acute angled lattice.
- Fragment of grey ware cooking pot with obtuse angled lattice.

Other grey fragments, some possibly NF. 3rd-4th century One grey lid. NF. 3rd-4th century

One bead and flange narrow-mouthed NF jar with black slip. 3rd-4th century

Other Pottery

- Fragment amphora.
- Colour-coated Wares
- NEW FOREST (all late 3rd-4th century)

Pedestal base. NF? Beaker with black slip.

Fragment of indented beaker. NF with red/black slip.

Fragments of two NF flagons with red slip.

Fragments of a NF flagon with black slip.

- Fragments of small NF stubby flanged bowl with orange slip (anomalous).
- Fragment of NF imitation ?Drag. 38 bowl (traces of red slip).

OXFORDSHIRE

Fragment of imitation Drag. 38 bowl (red slip). Late 3rd-4th century.

Lead Glazed Wares

Two fragments of softish orange fabric, brown lead glazed slip with incised parallel lines. Found in Roman deposit possibly 1st or 2nd century (Musty 1969).

Miscellaneous

Pottery disc, probably a counter.

Tile

Imbrices

Tegulae (including one large angled fragment).

Hypocaust (combed)

The position of some of the tiles suggests their re-use in secondary structures especially as bonding courses in walls, etc.

LHS stamped tile.

Glass

Fragment of window glass, one side rough from being made in a mould.

Iron

One T-shaped box tile nail. (implying a hypocaust).

Two nails 25mm long.

One nail 51mm long.

One nail 76mm long.

One large 152mm long nail with traces of wood adhering.

Fragment of 25mm wide iron, possibly strapping.

Stone

- Fragment of limestone quern.
- Two fragments of limestone possibly ?Chilmark or Purbeck.

Mollusca

Oyster shells.

Mussel shells.

 ${f F}$ INDS FROM THE PIT AT NORTH END OF SECTION

The outline of the pit was not absolutely definite, so the finds listed are probably but not certainly a group.

- B-B cooking pot sherds including two with oblique angled lattice. Late 3rd-4th century.
- Two rims of B-B cooking pots. Hadrianic/Antonine.
- Handle of a NF coarse ware jug. 3rd-4th century.
- Fragment of a NF red colour coated ware beaker. 3rd-4th century.
- Fragment of NF parchment ware vessel with painted red wavy line on the internal bevel of the rim.
- Fragment of a large dark grey hand-trimmed storage jar. Undatable.
- Three fragments of imbrices, one with an animal paw print on it.
- Two fragments of wall plaster with a red stripe painted over a white background.

One small nail.

Three fragments of limestone, ?Chilmark or Purbeck.

1977 EXCAVATION

In 1977 John Stratton decided to explore further the substantial building found at the edge of the Roman road in trench B in 1964. The excavations took place during July/August as part of a Wiltshire Youth and Community Service project with the assistance of a party of French students from Loiret.

A 33 x 1m trench was laid out at right angles to the line of the Roman road in order to obtain a further complete cross section. In addition a series of boxes were excavated to the NE of the main trench across the area known to contain the building foundations (Figure A2). The building was approximately 19.8 x 6.2m with the long axis very approximately NW/SE and at right angles to the line of the road (Figure A3).

The building had rammed chalk foundations about 0.5m deep and 1m in width. Mortared flint

walls 0.7m wide were located central to this; these survived in places up to 0.3m high where there were four courses of mortared flint nodules. There were ashlar dressings; at one corner three courses remained. Internal structures were confused and not really understood, but there were spreads of chalk rubble, an area of burning above the remains of a hearth or furnace at the SE end and a cobbled surface at the NW end. A coin of Gordian III, an irregular radiate and a very worn 4th century bronze were found in the building. Although the complete circuit was not excavated, there was one wall at right angles about halfway along the SW wall, so there would appear to have been another room or other structure attached on this side. In addition to the three coins mentioned above, the excavation yielded a further 11 which were all with the same date range and are listed below. After the excavation a coin of Constantinopolis type was found on the site.

In addition to the main building excavated, traces of a second structure with chalk foundations/ floor and flint walls was found just outside the side ditch at the edge of the agger on the other side (SE) of the Roman road.





Fig. A2. Two views of 1977 excavation at Stratford-sub-Castle

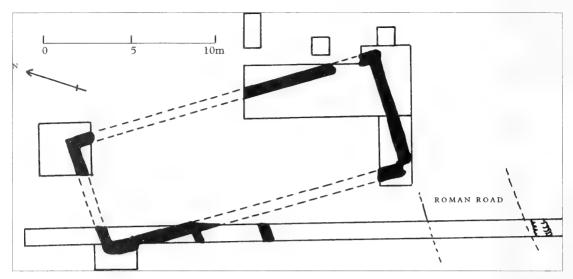


Fig. A3. Plan of strip(?) building excavated in 1977, Stratford-sub-Castle

List of Coins Found in 1974 and 1977

1974

The coins were said to have been found at Post Office Corner and at that time were in the possession of Mr George Hill of Allington. They were identified by Hugh Shortt who had some difficulty in accepting the find spot.

Augustus 1. As Obv: Head right Rev: Name of triumvir monetalis around s c Mint: Rome. Date: 22 BC Ref: cf. RIC 81, pl. IV 63

2. As Obv: Head left Rev: PONTIF MAXIM TRIBVN POT XXXIV around s c Mint: Rome. Date: 10-12 AD Ref: RIC 219

Germanicus (under Claudius) 3. As Obv: Head right Rev: Claudius' legend around s c Mint: Rome. Date: 51-54 Ref: RIC 84

Vespasian

4. As Obv: Head laureate right Rev: Altar PROVIDENT S C Mint: Rome. Date: 71 Ref: RIC 494

Domitian 5. As

Obv: Bust laureate right ?aegis Rev: Moneta with scales and cornucopiae Mint: Rome. Date: 85-96 Ref: RIC 335, 354a, 372, 387a, 395, 408 or 423

Trajan 6. As Obv: Head laureate right Rev: Victory left Mint: Rome. Date: 101-2 Ref: RIC 434

Antoninus Pius 7. As Obv: Head laureate right Rev: Sow suckling piglets under holm-oak? Mint: Rome. Date: 143-4 Ref: possibly RIC 733

Faustina I (under Antoninus Pius) 8. As Obv: Draped head right Rev: Juno standing with sceptre and patera left

Mint: Rome. Date: 145-6 Ref: RIC 1398

1977 Excavation

Gordian III (238-244) 1. Ag 23mm Obv: IMP GORDIANVS PIVS FEL AVG Rev: ROMAE AETERNAE Mint: Rome. Date: 240 Ref: RIC 70

SORVIODUNUM - A REVIEW OF THE ARCHAEOLOGICAL EVIDENCE

AE with silver wash 21mm
 Obv: IMP GORDIANVS PIVS FEL AVG
 Rev: P M TR P IIII COS II P P
 Mint: Antioch Hybrid type with reverse of Philip I
 Date: 247-8
 Ref: Similar to RIC 236 but TR P IIII

Gallienus (sole reign 260-268) 3. AE 18mm Obv: GAL[LIENVS] AVG Rev: AE[TERNITAS] AVG [Γ]-//-Mint: Rome Ref: RIC160

Victorinus (268-270) 4. AE irregular flan Obv: IMP C VICTORIN[VS P F AV]G Rev: PAX [AVG] V*//-Mint: I Ref: Normanby 1406

Tetricus I (270-274) 5. AE irregular flan Obv: [?]CVS P F AVG Rev: Salus type Mint: I Ref: Probably N1495

 AE 16mm possibly irregular issue Obv: IMP TET[RI]C[VS P F AVG] Rev: PAX[AVG] Ref: cf N1473 for type

7. AE 16mm Obv: [IM]P TETRIC[VS P F AV]G Rev: HILA[RITAS AVGG] Mint: I Ref: N1489

Tetricus II (270-274) 8. AE 17.5mm Obv: C P[IV ESV]TET[RI]CVS CAES Rev: SPES [PV]BLICA Spes 1c Mint: I Ref: N1526

Irregular radiates Date: 270+

9. Victorinus AE 12mm Obv: Victorinus / Rev: Invictus type

10. Tetricus I? AE 13mm Obv: [?] ICV[?] / Rev: Fides type ?

11. Victorinus or Tetricus I AE 12mm Obv: ? // Rev: Aequitas or Providentia type 12. Victorinus or Tetricus I AE Fragment only Obv: ? // Rev: Comes type?

13. Tetricus I AE Fragment onlyObv: ? // Rev: Salus type? (vertical sceptre)

14. House of Valentinian I or possibly Constantine I AE 14mm A very worn coin Obv: Perhaps Gratian // ?

After the excavation a Constantinopolis as LRBC 185 was found on the site by Mr M.A. Cole of Stratford-sub-Castle.

ACKNOWLEDGEMENTS

The author would like to express his gratitude to the large number of people who provided encouragement and assistance during the course of this work. Particular thanks go to Clare Conybeare; Roy Canham, Helena Cave-Penney and their staff (Wiltshire County Council Education and Libraries Department); David Hopkins and Sally Poppy (Hampshire County Council Environment Department); Pippa Smith and Talla Hopper (Wessex Archaeology); Paul Robinson (Devizes Museum); Chris Chandler and staff (NMR, Swindon); Bill Moffat; and last but by no means least to Peter Saunders and his staff at the Salisbury and South Wiltshire Museum without whose support and facilities this research would not have progressed so smoothly.

Notes

- 1. Roman road (RR)4c, (Margary, 1955, 95).
- 2. The aim of the report is to show the valuable heritage of Salisbury and to list the priorities and policies for archaeological investigation. The appraisal is strictly confined to the archaeological importance and potential of the area. All archaeological periods are covered by the report.
- 3. Personal communication from Mr P.A. Coggan.
- 4. A private communication from the excavator, John Stratton, to the then landowner, Miss Coggan, dated 5th August 1977 contains some additional information. This was to the effect that the building floors were of cobbled flint with mortar cover and some indication exists to give the impression that the floor in one room had been painted red. Also that the building had been covered with Mendip stone roofing tiles, nail hung onto roof beams and lath, and all the inside walls would have been mortar plastered.

- 5. Copies of original field cards held by the Wiltshire County Archaeology Department.
- The discoveries, made by the Ordnance Survey Field Investigator (Mr G.W. Ridyard), appear to have never been officially published.
- 7. Old Sarum document archive file No 1, item 13 held in the Salisbury Museum.
- 8. In view of the considerable ongoing debate over the most appropriate terminology for describing urban settlements (Burnham 1995, 7-17) and the difficulty at this stage in precisely categorizing the functions of *Sorviodunum*, the term 'town' is used as the descriptor in this paper. On the evidence found so far the category 'middle order settlement' would appear to be the most appropriate to describe *Sorviodunum* (Burnham 1995, 10).
- Western 'good' towns include Dorchester, Winchester and Silchester, and 'bad' towns Gloucester, Cirencester and Ilchester. Western settlements embrace Wanborough, Catsgore and Camerton (Reece 1993, 865).
- 10. Wiltshire and Hampshire Sites and Monuments Records indicate a density of at least 0.4 sites/square kilometer. Taking 7-10km as a reasonable distance for the rural population to walk to and from market in a day (Hingley 1989, 114f) gives nearly 120 farm and small 'village' settlements within 10km of Sorviodunum. An average 'half-way' distance of 16km to the next town in any direction means that some 320 sites could have viewed Sorviodunum as their principal trading centre. Taking the rural population density figures for the optimum period of the first half of the 4th century AD as between 20 and 50 persons/site (Millett 1990, 183-6) gives a potential rural population range of between 6,400-16,000 people. To these figures must be added the likely number of inhabitants in Sorviodunum itself. Millett uses an urban density range of 137-216 people/ hectare which for 45ha gives a population of between 6,165 and 9,720. Therefore the combined rural and town populations could have been between 13,000-26,000 people.
- 11. Recent discoveries at the Beehive (SU 145335 CP) in advance of a Park and Ride bus terminus construction indicate the possibility of a site close by (Wessex Archaeology 1998). Finds of tile and pottery (including 23 heavily abraded sherds amongst which were five samian, one New Forest coated ware and one Black Burnished ware) indicated a date range 1st-4th centuries. 16 coins covering the period from Antonius Pius (AD 138-161) to Valens (AD 364-378) were also found. The site is located less than 1km to the NE of Old Sarum on an area of land known as Folly Field formed by the junction of the Roman Roads to *Calleva* (Silchester) and *Cunetio* (Mildenhall).
- The Anglo-Saxon Chronicle entry for 552 records that Cynric defeated the Britons at Searobyrg, the Anglo-Saxon name for Old Sarum (Gelling 1988, 54-5).

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The Nineteenth-Century Re-use of Gravestones at Cherhill by Harold Mytum

Documentary and physical evidence indicates that at least five headstones at Cherhill were re-used, involving the removal of their original inscriptions and decoration. This was undertaken with the tacit agreement of the clergy. This type of memorial re-use has not been documented elsewhere, but has implications both for the dating of memorial forms on the basis of inscriptions and for understanding the significance given to memorials and their texts in rural churchyards during the 19th century.

INTRODUCTION

Archaeologists have become increasingly involved with the study of 19th-century death, whether through the study of crypts and vaults (Litten 1999; Reeve and Adams 1993), burials (Boore 1986; Cox and Stock 1995; Stock 1998), or memorials (Mytum 1994, 1999; Rahtz and Watts 1983; Tarlow 1999). Only the last of these can be undertaken on a wide scale, and without intervention which is both costly and involves considerable ethical concerns (Cox 1998). The guidance on archaeological graveyard recording for long gave little consideration to the matter of gravestone dating, with the inference that this is easily ascertained from the memorials (Jones 1976, 1979, 1984). Extensive studies of memorials have now indicated that this assumption needs to be treated with care (Mytum forthcoming), and new guidance gives greater attention to this matter (Mytum 2000). A combination of physical and documentary evidence at Cherhill provides an important insight into the state of a 19th-century graveyard and the complex use lives of gravestones. It is also a cautionary tale of which graveyard recorders should be aware, and reveals contrasting attitudes to memorials held by successive Wiltshire clerics.

Memorials in burial grounds can be defined in two ways: by their physical form and by their textual content. Genealogists have carried out extensive recording programmes to recover names and dates of those commemorated, and at times have recorded the whole inscriptions and the ways they are laid out on the stones (White 1977; Rayment 1981). Archaeologists have concentrated on recording and considering the form and decoration, and also the formal characteristics of the inscription such as methods of inscription and style of lettering (Jones 1976; Mytum 2000). Within the text there is much of importance which can enhance an archaeological understanding. Not only names and dates, but also places, occupations, and relationships occur, though the popularity of these varies over time and from region to region.

Some archaeological surveys have recorded a very great deal of information regarding the memorials, but often there has been insufficient attention given to the sequence of events involved in inscribing the stone. The issue was raised by Sebastian Rahtz in the study of the Protestant Cemetery in Rome (Rahtz 1987, 165), but not elaborated. In this regard, the re-use of memorials requires attention, and the evidence from Cherhill is of particular importance.

The date of death of one or more individuals is normally provided within memorial inscriptions. These death dates are traditionally used by archaeologists and art historians to provide some indication of the date of manufacture and erection of the memorial, though on some occasions erection dates are explicitly given.¹ As a single stone can be used to commemorate a number of individuals who died at different times, it is the whole inscription which was placed on the stone before or as it was first erected that is crucial for dating. The first text to be inscribed can be termed the primary text. This consists of any introductory phrases and may contain details of one or more deceased. In most cases, the primary text includes the primary commemoration or commemorations, the first recorded death or deaths on the memorial. However, where the primary text is merely a statement about the monument or plot, defining a family burial space, then the first deaths commemorated will not be in the primary inscription, but rather are recorded in a later inscriptional event. This first commemorative role for the monument should still then be termed the primary commemoration. Many memorials have several inscriptional events, often spread over generations. Subsequent inscriptional events are usually also commemorative, and can be termed secondary, tertiary and later commemorations. They are very important in the study of monument use, and the social value of memorials. They indicate attitudes to kinship and social relations, both explicitly through statements of relationships, and implicitly by who is placed with whom on the stone, and in what order. The full set of commemorations also gives indications of the patterns of burial and commemoration within the graveyard, though the fact that someone is commemorated on a stone does not mean that they were buried in that plot, or even in that graveyard.

RE-USE OF MEMORIALS

The normal assumption with regard to graveyard commissioning and dating is that the text on the memorial relates to the choice of that stone from the mason, and its relatively rapid inscription and erection in the graveyard. It is possible, however, for memorials to be re-used. There are examples of medieval slabs being used in the post-Reformation period (Sunley 1999), but memorials of a later date also suffered the same fate. These were normally large stones and often the earlier inscription is still visible; it also occurred inside churches, with ledger stones. No examples of complete text removal and re-use of decorated headstones has been archaeologically recorded from Britain, but a documentary source has suggested this possibility for Cherhill (Plenderleath 1887, 299-300),² and this has been linked to study of the surviving headstones in the graveyard.

The Reverend W.C. Plenderleath, who was Rector of Cherhill from 1860 to 1891, wrote a two volume work in 1887 which included a discussion of the churchyard (Plenderleath 1887).³ The relevant passage is worth publishing in full:

I have but just completed a transcript of all the inscriptions now existing in Cherhill church-yard, which I have added to my book of parochial indices. And I have come across indications in the course of that work of an amount of carelessness on the part of my predecessors which I would not have believed possible. There is a headstone in the churchyard, in which the ornamentation of the stone looks like the work of early in the last century, while the inscription bears date 1824, and appears from the sharpness of the cutting to have been actually incised at a still later period. I happened to mention this to the clerk. He said in reply that he had known of several stones having been taken up, with the express permission of my penultimate predecessor, (who resigned the living in 1840: - I will not insult his name, for he was a man whom I knew well and greatly respected: -)4 these stones to have been carried into Calne, the old inscription entirely clipped off and a new inscription cut, then to have been brought back and set up again in the churchyard. Subsequent enquiries have established the fact that several similar permissions were given also by my immediate predecessor.5 And the most curious thing is that although it is technically an ecclesiastical offence to have done this without the sanction of the ordinary, yet it does not appear to have been, as far as I have been able to discover, a civil offence at all, or punishable by any process known to the common law. I can only say that I think we shall all agree that if such really be the fact, it is decidedly a casus omissus, - a malum sine remedio. (Plenderleath 1887, 299-300)

This description of headstone re-use suggests a practice at Cherhill which lasted over two incumbents and therefore over several decades in the early to middle part of the 19th century. The stones chosen for re-use were already of some age, according to Plenderleath. Indeed, it is likely that they belonged to the first phase of widespread headstone use in the churchyard, as few memorials were erected in churchyards before the late 18th century.⁶

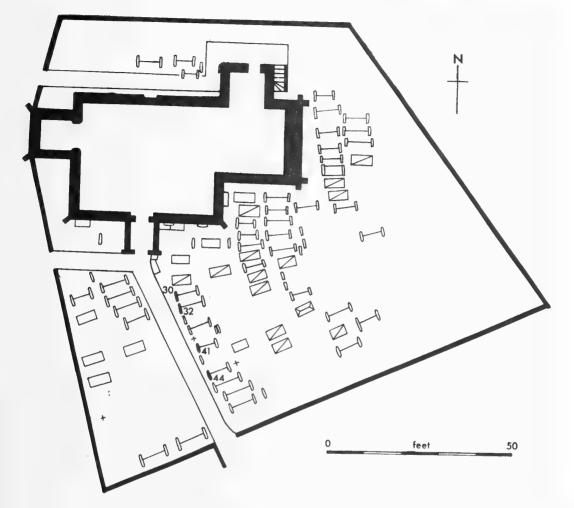


Fig. 1. Plan of Cherhill churchyard, as of 31st December 1882, redrawn from the plan by W.C. Plenderleath, 1887. The recut headstones are numbered, and re-used headstones and footstones are shaded black. Lines joining headstones indicate a set of head and footstones; concentric rectangles indicate chest tombs, crosses indicate cast iron crosses

Plenderleath not only produced his Memoranda, but also an index to the parochial records in his care, listing all those mentioned alphabetically under separate indices for each type of register (WRO 1121/8). At the back of this volume was a neatly produced and numbered churchyard plan, and a transcription of all the inscriptions. Memorials of various kinds are noted on the plan – tombs, ledger slabs, head and foot stones, and cast iron crosses. He makes no comment on any decorative motifs with the inscriptions. Plenderleath did explicitly indicate, however, the five stones which he knew were re-used, in the following annotation linked to the transcripts for stones 30, 32, 41, 44, and 65: Mr. James Eatwell, Churchwarden, states of his positive and personal remembrance, that the stones marked on the plan 30 and 41 were given by Canon Guthrie to have their inscriptions erased & other inscriptions cut. Also that the stones marked 32 and 44 were similarly given by Mr. Farley. The stone marked 65 he remembered to have been treated in the same way during Canon Guthrie's incumbency, but whether by that gentleman's permission or unknown to him, can not say. Mr. Eatwell does not remember what was the previous inscription on any of these stones. (WRO 1121/8, 332)

Plenderleath was thus definitely able to identify both visibly and through local knowledge five stones which had been re-used, but it is unclear whether these were re-used by relatives who might consider, correctly, that they were legally responsible for the stone. That they could use it again is an interesting legal point, though the permission of the incumbent was seen as necessary. The re-use, alternatively, may have involved the selection of gravestones which recorded families who had by then died out, and which were felt to belong to no one and so could be taken up, cleaned off, and re-inscribed. Plenderleath could not make clear the relationships between those originally and subsequently commemorated, but considered it ethically undesirable in any circumstances.



Fig. 2. Headstone 30 to Uriah Potton, died 1826, and 32, to Mary Elizabeth Wright, died 1845

The field evidence

A careful examination of the headstones in Cherhill churchyard was carried out in April 2000 to discover if the five identified headstones still survived, and also to ascertain the stylistic changes in the churchyard that made it possible for Plenderleath to have his suspicions raised in the first place. The survey was also designed to allow detailed examination of the inscribed headstone surfaces to identify any traces of previous inscriptions, and of the cross-sections of the headstones to suggest a definite thinning of the memorials due to such texts being removed.

The plan produced by Plenderleath (Figure 1) proved to be accurate and effective for the purpose of locating stones, and all but no. 65 were still *in situ*. The one missing stone may be one of a number removed from position and now stacked, leaning against the east wall of the chancel, with their inscribed faces towards the wall. This is most unfortunate as it is this memorial which is the only

re-used stone dated 1824, and so must be the one which he describes as having decoration. Plenderleath's comment 'looks like a palimpsest', written after the inscription in his transcript (1883, 341), suggests that it was not like the others available for study today, and must have had some of the earlier features still visible. The 1824 date for stone 65 also provides the earliest dated example of the reuse of a headstone at Cherhill.

The four surviving stones, 30, 32, 41, and 44, all lie in the row of headstones placed facing the east side of the path leading up to the south porch of the church, and so all are in prominent positions. Two (nos. 30 and 32) are the nearest headstones to the porch, and are thick stones with typically shaped tops, but no decoration (Figure 2). The inscriptions, not easily legible today, start very high on the stone, so if there had been any decoration it would have been erased before the new text was added. Each stone, according to the parish clerk quoted by Plenderleath, was reused under a different incumbent. The text of headstone 30 implies a date of erection following the death of Uriah Potton in



Fig. 3. Headstone 44 to Jonas Rivers, died 1849, with an unusually shaped top

THE NINETEENTH-CENTURY RE-USE OF GRAVESTONES AT CHERHILL

1826, with headstone 32 significantly later, as Mary Elizabeth Wright died in 1845. Another headstone. 41, shows some sign of modification, with the thickness of the stone implying some adaptation. Whether this alone would have been sufficiently distinctive to have aroused modern attention without the documentary evidence, however, is doubtful. The inscription on the stone indicates that it was erected following the death of Catharine Clifford in 1838, with her husband Peter dying only three years later in 1841. It is noteworthy that the inscription states that 'He was 44 years Clerk of this Parish'. This suggests that Peter Clifford, clerk for such a long period when the vicar of Calne was responsible for the care of Cherhill, may have been a leading figure in the early re-use of headstones.

The last memorial to be reused was headstone 44, following the death of Jonas Rivers in 1849. This stone does convey an unusual appearance, being both unusually thin for headstones of this date, and because of its shape (Figure 3). This is distinctive and unusual within the churchyard, with a flat top and shoulders. Another monument of this form has been identified which indicates the probable original date of the Rivers headstone. Headstone 46 stands to the south of the Rivers stone in the same row, and is in memory of Elizabeth, wife of Charles Strong, who died in 1786. This particular memorial has very well produced shallow false relief foliage decoration at the top of the stone (Figure 4). The finely cut lettering is only on the left side of the stone; evidently Charles Strong had intended to be commemorated next to his wife but for whatever reason was not added. The Rivers headstone would have been easily prepared by removing a relatively thin sliver off the face of the stone; erosion may achieve this yet for the Strong stone, as the top left corner has already flaked away.

Re-used stones 30, 32, 41, and 44 had footstones with initials which matched the newly recorded names on the headstones. In the case of the Rivers grave, this footstone 45 had the year of death and an appropriate verse from the deceased wife to the husband. It is noteworthy that the adjacent Strong grave was also marked by a footstone, in this case giving the initials and year of death. The missing headstone 65 to William Flower had a footstone at the eastern end of the grave, and here a more complex picture emerges. Whilst William Flower died in 1824, the footstone 66 was inscribed 'S.F. 1733' (Plenderleath 1883, 341). It would seem likely, therefore, that footstones as well as headstones were often but not always re-used.



Fig. 4. Headstone 46 to Elizabeth, wife of Charles Strong, died 1786, with same shaped top as headstone 44. Note the false relief foliage decoration

The incongruence between the headstone and footstone dates and initials at the William Flower grave gives some indication of the circumstances in which headstone re-use could take place. The earlier initials of 'S.F.' on footstone 66 suggest that it was already a Flower family grave (as was that immediately to the north, with headstone 63 for Sarah Flower, who died in 1796, aged 9 years, and who had her own footstone 64, 'S.F. 1796'). The evidence from William Flower's burial place indicates continued use of a family plot over a period of a century, with the re-use of a stone that must have still been in reasonable condition. Other continued use of family burial plots may alternatively have led to the complete replacement of the memorial, something to which Plenderleath may have not had an objection, and for which we would now have no evidence unless replacement was explicitly mentioned in the inscription.7 Whether the other four examples of headstone and footstone re-use were on graves already belonging to the families now commemorated remains unknown.

CONCLUSIONS

The re-use of headstones was probably never very frequent or widespread, as implied by the indignation of Plenderleath and the lack of any case law on the subject. The replacement and restoration of memorials was common enough, however, and is sometimes explicitly recorded on the inscribed texts (Mytum 2000, 127). Other forms of adaptation could have occurred, and the Flower headstone reuse suggests that this could occur on established family plots. The context of prior grave ownership is uncertain in the other four identified cases here. The Cherhill documentation reminds gravestone recorders to be aware of the potentially complex use lives of the memorials. Not only may gravestone texts be accumulated through a sequence of inscriptional events, but such events can occasionally lead to the removal of outmoded texts. Whether this practice was a regional one beyond that of Cherhill would be a subject of wider study. Gravestones are valuable examples of popular material culture, combining form and text in a way which allows many opportunities for analysis. It is important to treat such evidence critically, and as with many other archaeological and documentary sources, consider the particular factors that have affected the material which survives for us to study today.

Notes

- Erection dates occur very rarely in many areas, but only in numbers in a few regions such as Stirling, Clackmannan, Renfrew and Dunbarton in the central lowlands of Scotland (Harrison 1990) and County Louth in eastern Ireland (Mytum forthcoming).
- 2. I am very grateful to John Reis for informing me of this source.
- 3. A copy of the main text was used by the parish, and is now in the Wiltshire County Record Office (henceforth WRO), 1121/14, but this volume does not contain the appendix referred to here.
- 4. Cherhill was united to Calne in a Deed of Consolidation in 1733, and so the vicar of Calne was responsible for services until a Rector was instituted in 1844 (Blackford 1941, 119-120). The vicar referred to here was Canon Guthrie, mentioned by name with reference to the stones in Plenderleath's list of churchyard monumental inscriptions (1883), WRO 1121/8, 332.
- 5. Rev. Farley, mentioned by name in WRO 1121/8, 332.
- 6. This pattern has been noted in Wales (Mytum 1990), and Orkney (Tarlow 1999), and is thought to be a national trend (Tarlow 1998). Houlbrooke (1999) suggests that the late 17th century marks the beginning of relatively large numbers of external memorials, but this is rather the time when postmedieval memorials first appear, and then continue at a very low level for a century before there is a rapid rise in numbers and an increased sophistication in their form. Only the headstones from the later 18th century onwards would have been suitable for late re-use, the earlier examples being small, thick, and much more crudely carved.
- 7. The replacement of headstones is frequent in Ireland. Often here the original memorial is laid on top of the

grave, though it may subsequently be removed or buried. Names of those on the original memorial may be inscribed on the new monument in whole or part, or the commemoration may start afresh. Frequent tidying of English graveyards would make the survival of replaced headstones rare.

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Fig. 1. Henri de Triqueti : The Choir of Angels, marble tarsia 1863. Church of St. Michael and All Angels, Teffont Evias. (Photograph by Idris Kirby, Tisbury)

A French Sculptor in Wiltshire: Henri de Triqueti's Panel in the Church of St. Michael & All Angels, Teffont Evias by Elisabeth Darby

The Albert Memorial Chapel at Windsor Castle is probably the best-known work by the French sculptor Henri de Triqueti (1804-1874) in this country. His contribution to the Chapel included fourteen mural panels in marble tarsia, a technique he first explored in the 1840s. Only five other completed examples of his process survive. One of these is The Choir of Angels, commissioned by Emily Fane De Salis (1822-1896) of Teffont Manor, Wiltshire, and installed in the church at Teffont Evias in 1863. Although not the earliest example, this marble tarsia panel was, however, the first to be erected and its publication here offers the opportunity to examine Triqueti's development of this interesting technique.

Above the east window in the Lev Chapel in the church of St. Michael and All Angels at Teffont Evias, Wiltshire, is a representation of a Choir of Angels signed by Henri de Triqueti and dated 1863 (Fig. 1). Described in Pevsner as sgraffito,¹ it is, in fact, an example of the marble tarsia technique first developed by the French sculptor Triqueti in the 1840s which was to reach its most elaborate expression in the Albert Memorial Chapel at Windsor Castle executed between 1864 and 1875. Although the work of Triqueti (including that in England) has been extensively researched in recent years, the Teffont Evias panel is largely unknown.² This article will seek to explain why a marble tarsia panel by this eminent foreign sculptor should be at Teffont Evias and will place the work in Triqueti's development of the technique.

Henri de Triqueti (1804-1874) trained initially as a painter.³ His career as a sculptor began at the Salon of 1831 when he showed a bronze relief entitled La Mort de Charles le Téméraire. The piece was well-received and thereafter Triqueti devoted himself to sculpture, executing a range of works in a variety of materials. His most notable achievements were the bronze doors for La Madeleine in Paris (1831-1841) and the cenotaph to the duc d'Orléans in the Chapelle St. Ferdinand, Neuilly-sur-Seine (1842-3). During the 1830s and 1840s Triqueti executed a number of bas-reliefs and also designed decorative art objects (including vases and swords) which, inspired by Medieval and Renaissance sources, incorporated different materials and achieved polychromatic effects. His interest in colour and in bas-relief demonstrates an enthusiasm for exploring the boundaries between painting and sculpture which was characteristic of the Romantic sculptors in France at this time, but which was also evident in his development of the marble tarsia technique.

The process of tarsia which Triqueti developed involved a marble ground on to which the design to be executed was traced. Coloured marbles were cut to the required shape and attached to the ground with cement and occasionally metal clamps. Lines were then engraved into these marbles where further detail was required and these incisions were then filled with coloured cements.⁴ The process was inspired by the marble pavements of Italy, particularly those executed by Domenico Beccafumi (c.1486-1551) in Siena Cathedral in the early sixteenth century, after which date it fell into disuse. The technique resembles marguetry in wood and it was possibly as a result of his involvement with the restoration of the marguetry and bone reredos from the Abbey of Poissy in the 1830s, together with his travels in Italy, that Triqueti decided to explore marble tarsia. In reviving the technique, Triqueti illustrates nineteenth-century interest in the past which frequently involved the reintroduction of old processes alongside the adoption of forms and decorative motifs associated with earlier styles. Further, nineteenth century revivalists often sought to outdo their predecessors and this seems to have been the case with Triqueti. Whereas early examples employed a limited range of colours and cements (largely black, white and grey), Triqueti elaborated the range of both to such an extent that one commentator suggested that 'on peut dire qu'il a ouvert une voie nouvelle à l'art décoratif'.5

Triqueti also realised that this process, confined at Siena to pavements, had potential for wall decoration. The sculptor seems to have begun experimenting with marble tarsia in the early 1840s, at a time when other techniques for polychrome wall decoration, particularly fresco painting, were being tried in public buildings in both France and England with varying degrees of success.6 The advantage of the tarsia process over fresco, in his view, was its permanence. He stated that the cements had 'the same hardness, adherence and durability, as the marble itself' and that it was 'not affected by the atmospheric influences often fatal to fresco painting'.7 However, the durability of the process, and its elaboration in terms of the range of marbles and cements, was achieved only gradually as the surviving examples testify.

Triqueti proposed the use of marble tarsia when he was consulted by the architect Louis Visconti (1791-1853) about the decoration for the tomb of Napoleon I at Les Invalides in Paris.⁸ In 1843 he was commissioned for a frieze, 70 metres long by 20.3 metres high, narrating the principal events of Napoleon's life, which was to decorate the walls of the peristyle around the tomb. As it was thought no atelier in France would be able to execute the work, Triqueti travelled to Italy to study examples there and to experiment further with the technique. In 1844, however, the idea was abandoned, the effect of the marble tarsia being considered 'trop éteint et effacé' for what was already a sombre space.⁹

Despite this setback, Triqueti continued to work on the technique during the 1840s, and in 1848 he

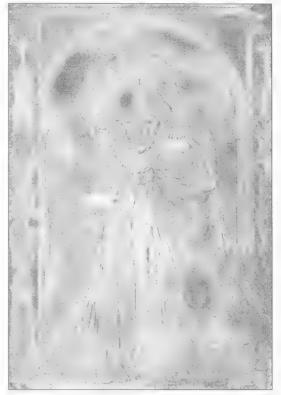


Fig. 2. Henri de Triqueti : The Visitation of Mary to Elizabeth, marble tarsia 1847. Victoria and Albert Museum. (Photograph by permission of the V & A Picture Library)

exhibited at the Paris Salon two panels: The Visitation of Mary to Elizabeth (Fig. 2) and Peace and Public Prosperity which were described as marble mosaic murals intended for churches, public or private buildings.¹⁰ Neither of these panels was purchased, nor did their display lead to any commission and it would appear that Triqueti temporarily abandoned his experiments with tarsia for there is no evidence that he persevered with the process during the 1850s. However, in 1862, he showed the same two panels at the International Exhibition held in London in that year. This seems to have been a late decision on Triqueti's part, and the panels were not included in the catalogue in consequence.11 The sculptor, who was often in England from the late 1850s visiting exhibitions and collections,12 might have sensed opportunities for decorative schemes in this country which prompted him to reshow these works, even though they were now fifteen years old. Certainly, their re-appearance at the 1862 Exhibition led to a flurry of interest and commissions.

The South Kensington Museum (now the Victoria and Albert Museum), for example, bought the panel representing *The Visitation of Mary to Elizabeth* (Fig. 2) from the exhibition for the sum of \pounds 130.¹³ It was originally located in the Museum of Construction and Building Materials – a part of the South Kensington Museum which contained examples of materials for buildings and their decoration.¹⁴ Triqueti's novel process of wall decoration would have been of particular interest to the museum at this date when an extensive programme of internal decoration (in which mosaic work was to figure prominently) was being initiated.¹⁵

The Visitation panel has a solid marble ground but the range of marbles used is limited and, indeed, some sections appear painted rather than of different stones.¹⁶ However, both black and red cement was used for the engraved decoration. The panel is now in rather poor condition: some of the cement has fallen out which suggests that Triqueti had not yet mastered the shaping and roughening of the grooves which kept the cements in place.¹⁷

It was also in the early 1860s that Triqueti's work was considered for the decoration of St. Paul's



Fig. 3. Joseph Edgar Boehm : Emily Fane De Salis, bronze statuette 1871. Private Collection.

Cathedral and for the dining hall of The Temple (although nothing was to come of either proposal)¹⁸ and that he was commissioned to execute the panel for Teffont Evias church (Fig. 1).

The panel was commissioned by Emily Harriette (1822-1896: Fig. 3), the eldest daughter and heiress of John Thomas Mayne (1792-1843) of Teffont Manor.¹⁹ The Mavne family had owned the manor, and been patrons of the church at Teffont Evias, from 1692 until 1802 when the estate was sold to William Wyndham. It was bought back for the family in 1813 by John Thomas Mayne who shortly afterwards made additions (in picturesque embattled style) to the exterior of the manor house and also initiated extensive repairs and alterations to the church. Most of the work on the church (the origins of which date back at least to the 13th century) was carried out by the architect Charles Fowler (1791-1867) from 1821, but the tower was completed and a spire added by the young George Gilbert Scott (1811-1878) between 1830 and 1843 (Fig. 4).20

Emily Harriette inherited the estate in 1852, and in 1859 she married William Fane De Salis (1812-1896) of Dawley Court, Middlesex. William, the third son of Jerome, 4th Count De Salis, belonged to the Soglio branch of the De Salis family which was descended from Peter, 1st Count and Envoy of the Grisons to Queen Anne.²¹ Educated at Eton and Oriel College, William travelled extensively on business to Australia and the Far East in the 1840s, and he was subsequently director of several Australian companies and of the P. & O. Company (1851-1895), of which he was Chairman between 1878 and 1881.²²

There were no children from this late marriage.²³ The couple involved themselves in charitable works, notably the building of a cottage hospital to serve Harlington, Harmondsworth and Cranford in Middlesex (opened in 1885) which Emily visited regularly.²⁴ At Teffont, they were responsible for the construction of a pair of almshouses (1884-5) and the Manor School in addition to providing a supply of fresh drinking water for every house there.²⁵ Emily was also a frequent traveller to the continent, recording her visits in sketches.²⁶

On their marriage, William and Emily made Dawley Court their principal residence, but the couple spent several months each summer at Teffont. Here, they made a number of improvements to the manor²⁷ and to the church. William paid for a new roof for the north aisle while Emily displayed her artistic talents by painting a new east window which was erected as a memorial to her father; this window, unfortunately, does not survive.²⁸ Emily's commission to Triqueti for a marble tarsia panel for the Ley Chapel was, therefore, one of a number of embellishments undertaken in the early 1860s which continued the improvements of her father.



Fig. 4. The Church of St. Michael and All Angels, Teffont Evias, with Teffont Manor in the background. (Photograph by Idris Kirby, Tisbury)

Why did Mrs Fane De Salis choose the work of a French sculptor to decorate a small village church in Wiltshire? She was not a noted patron of the arts, although her surviving scrapbook reveals some interest in sculpture, and both she and her husband were portrayed by Joseph Edgar Boehm (1834-1890) who, like Triqueti, was a royal favourite, becoming Sculptor to Queen Victoria in 1881(Fig. 3).²⁹ Emily was already familiar with Triqueti's work for she had bought an ivory figure of a faun playing cymbals by him which had been exhibited at Colnagi's in London in 1859.30 Triqueti was noted for his use of ivory but this purchase alone does not fully explain why she should have commissioned an example of his marble tarsia work. It was possibly also as a result of seeing the two panels at the 1862 International Exhibition in London that she decided to commission such a work for the manor church.³¹ However, another compelling motive for the commission was the fact that Triqueti and William Fane de Salis were distant relatives. Henri de Triqueti's mother, Amadea Sophia Maria Henrica (b.1776), was of the De Salis-Samedan branch of the family (also from the Grisons), being the only child of Joachim v. Salis-Samedan and Margaretha de Sartigny.³² William and Triqueti were distant cousins and Emily, as an amateur artist herself, was no doubt interested in, and anxious to support, such a renowned member of the family.

Whatever the reason for this commission, the Teffont Evias panel was to be the first of Triqueti's marble tarsias actually to be used as wall decoration. Moreover, it was also larger than any of his earlier panels, measuring more than 10 feet wide and 7 feet high.³³

The Choir of Angels panel (Fig. 1) arrived in London in the summer of 1863 when it was shown at a conversazione of the Institute of British Architects.³⁴ It was installed in Teffont Evias church by the end of October.³⁵ The work was wellreceived, *The Salisbury Journal* commenting that 'The draperies are simple and beautifully disposed, and the expression of the heads recalls the reverential feeling and devout sentiment which the early Italian masters gave to their inspired types of angelic beauty. The tone of the colouring, though sober, is far from cold in its effect, and harmonises admirably with the subdued light of a gothic church'. ³⁶

Three different coloured marbles are used in the panel: dark blue for the background; white statuary marble for the flesh parts and the banner which the angels hold; and Sicilian grey for the draperies, wings and the clouds on which the angels rest. The haloes of the angels, together with the inscription engraved on the banner (which reads *Hallelujah! Hallelujah!*) are gilded. Two different coloured cements (black and red) are used as in the South Kensington Museum panel. The composition is more complex than that of *The Visitation* panel, however, being of three seated or kneeling angels arranged on either side of a central, standing figure in a balanced composition. This

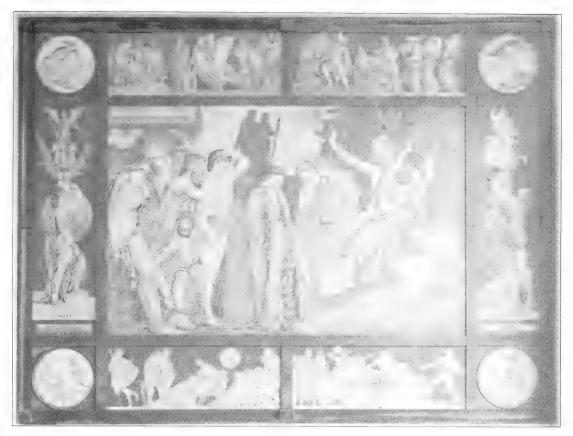


Fig. 5. Henri de Triqueti : Marmor Homericum, marble tarsia 1865. University College London, south cloister. (Photograph courtesy of the Conway Library, the Courtauld Institute of Art)

pyramidal format necessitated three separate sections of marble, the vertical joints of which are clearly visible.

The illustration reveals a problem concerning the mounting of the panel on the wall of the chapel. At the base of the panel is an engraved horizontal line. This line seems to continue around the whole piece (it is just visible on the right hand edge) but has been cut off on both sides by the wooden frame. The frame also appears to cut through the wings of one of the angels on the right side, and both Triqueti's signature and the ribbon on that side are uncomfortably close to it. This cutting of the image may have been the result of positioning the marble incorrectly. The photograph makes clear that the marble panel is held up by metal clamps and that it was, therefore, probably attached to the wall without the frame. When the latter was added, it was realised that the panel had been placed too close to the ceiling of the chapel. The frame had to be lowered, revealing the engraved line at the bottom but hiding

the side ones. This adjustment further explains why the lower edge of the work cuts across the top of the window in such a disconcerting manner. Triqueti was to adopt a different solution to the border in his subsequent tarsia panels.

The exhibition of the Teffont Evias panel in London in July 1863 may have been one reason why George Grote (1794-1871), best known for his twelve-volume History of Greece (1846-1856), commissioned Triqueti for another example of his marble tarsia work.³⁷ This was the Marmor Homericum (Fig. 5) which was presented by Grote to University College London, an institution with which he had been associated since the 1820s and of which he became Vice Chancellor in 1862. The Marmor Homericum was unveiled in May 1865 in the south cloister of University College where it remains.³⁸ It consists of a principal panel, 9 feet by 6 feet, which depicts Homer reciting the story of Hector's death and Andromache's grief to the people of Greece. Above and below this are smaller

The Marmor Homericum marks a new departure in Triqueti's tarsia work in several respects. The range of coloured marbles and cements employed is considerably greater than on earlier panels, with red, green, brown, black and purple engraved lines. In consequence of this enhanced polychromy, the boundaries between painting and sculpture are more fully explored. Also, greater attention is given to the patterning and details of the draperies, and to the jewellery, furniture and other decorative objects in the scenes, an indication of Triqueti's involvement with the applied arts. Another significant development in the Marmor Homericum is the addition of a medallion in Carrara marble at each of the four corners, with reliefs representing Venus, Minerva, Helen and Penelope. This combination of flat and relief surfaces, polychromatic effects and attention to ornamental detail, was to be utilised by Triqueti in his most prestigious work in England - the decoration of the Albert Memorial Chapel at Windsor Castle.

Following Prince Albert's death in December 1861, Queen Victoria embarked on an extensive programme of commemoration.⁴⁰ Early in 1862, and at the suggestion of her eldest daughter, Victoria, the Crown Princess of Prussia, it was decided to convert the Wolsey Chapel at Windsor Castle into an Albert Memorial which the public could visit as a place of pilgrimage. The cost of the project was borne by Queen Victoria who entrusted the overall design to the architect G. G. Scott (who was also to be responsible for the Albert Memorial in Kensington Gardens). The work of remodelling the chapel began in 1862 but it was not completed until 1875, shortly after Triqueti's death.41

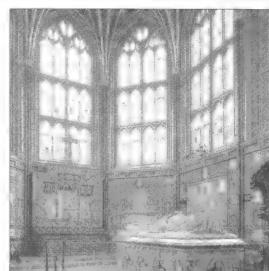
In the summer of 1862 the Crown Princess suggested that the roof of the chapel should be decorated with marble tarsia pictures by Triqueti.42 Triqueti's work had been known to the royal family for some time. In 1855, during a visit to Paris for the Exposition Universelle de l'industrie et des beaux-arts, Queen Victoria and Prince Albert had visited the Chapelle St. Ferdinand. Queen Victoria described Triqueti's monument to the duc d'Orléans as 'beautiful and touching'. 43 In 1852 the royal couple had purchased Triqueti's ivory statuette of Sappho and Cupid, and in 1858 his marble figure of Edward VI. In 1858 or 1859 Triqueti showed examples of his marble tarsia work

Fig. 6. The Albert Memorial Chapel, Windsor Castle. (The Royal Collection ©2001, Her Majesty Queen Elizabeth II. Photograph : Conway Library, Courtauld Institute of Art)

to Prince Albert who expressed interest and gave the sculptor 'les plus précieux encouragements'.44 It was probably memories of this encounter, perhaps prompted by the display of the panels at the 1862 Exhibition, which encouraged the Crown Princess (who was a close friend of Triqueti⁴⁵) to suggest the adoption of the technique in the chapel. The idea was rejected by G. G. Scott, however, who maintained that the curved surfaces of the ceiling were inappropriate for large slabs of marble.46

The idea of Triqueti's involvement was not entirely abandoned and, in the spring of 1864, the Crown Princess once again suggested his tarsia work for the chapel. This time it was agreed that it should be used for the walls of the chapel beneath the stained glass windows (Fig. 6).47 Shortly afterwards, in October 1864, Mrs Emily Fane De Salis wrote to Sir Thomas Biddulph, Master of the Queen's Household, enclosing a photograph of the tarsia panel at Teffont Evias and stating that as 'This work of art is the first of the kind produced in this country by Monsieur de Triqueti & as Her Majesty has selected this talented artist to decorate in a similar manner the Wolsey Chapel....it might be agreeable to the Queen to inspect a photograph' recently taken of the work. The Queen's response





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is not recorded and the photograph does not survive in the Royal Archives.⁴⁸

Triqueti's scheme for the Albert Memorial Chapel involved a series of fourteen rectangular marble tarsia pictures, surrounded by borders in Florentine mosaic (inlay of semi-precious hard stones) with bas-reliefs. Set into the borders above the tarsia pictures on the north, south and west walls are medallion portraits of Queen Victoria and Prince Albert's nine children together with one of the Princess of Wales. These were executed by Susan Durant (d.1873), Triqueti's favourite pupil and also a close friend of the Crown Princess.⁴⁹ The overall format of the tarsia pictures and their borders, and the combination of flat and relief surfaces, recalls the Marmor Homericum on which Triqueti was working at the same time.

The tarsia pictures and bas-reliefs on the north, south and west walls of the chapel depict stories from the Old Testament which allude to the virtues and achievements of the Prince Consort: thus, David listens to the angelic choir which inspires his psalms (Fig. 7) refers to Prince Albert's eloquence and musical gifts.⁵⁰ The tarsia pictures in the east end of the chapel are devoted to the Passion of Christ. The first panels arrived in the winter of 1867⁵¹ but completion of the remaining ones was delayed in consequence of the Franco-Prussian war and they were not in place until 1871.52 Queen Victoria, who 'had never seen before any of Mr. Triqueti's inlay works', first viewed the panels in March 1868 with Susan Durant. The sculptress reported that 'the beauty of the marbles was quite a surprise' to Her Majesty, adding that 'much as she [Oueen Victoria] had heard of them she had no idea of anything so beautiful!'53 The panels formed, however, only one part of Triqueti's contribution to the Albert Memorial Chapel which also included the cenotaph to the Prince Consort among other works.54 The sculptor did not live to see the interior



Fig. 7. Henri de Triqueti : David listens to the angelic choir which inspires his psalms, marble tarsia 1864-1871. Albert Memorial Chapel, Windsor Castle. (The Royal Collection ©2001, Her Majesty Queen Elizabeth II. Photograph: Conway Library, Courtauld Institute of Art)

finished in its entirety: he died in 1874 regretting 'that he had not been able to show his beloved work completed to the Queen'.⁵⁵

The panel of David (Fig. 7) incorporates a choir of angels resting on clouds, the figures holding banners and draped in a manner reminiscent of the Teffont Evias panel. However, the composition of pairs of angels alternating with angels holding instruments is more complex than in the earlier work and creates a rhythm which is echoed in the arches of the temple on the right of the panel. The Albert Memorial Chapel panels continue the style of the Marmor Homericum with their richness of draperies, detail of objects and architectural settings, and also with the variety of colours employed: twenty eight different marbles from Great Britain, France, Italy, Greece and Belgium were used for the pictures, together with a range of coloured cements.56

The tarsia panels in the Albert Memorial Chapel were executed by Triqueti's former pupil, Jules C. Destréez (b.1831) who, it was stated in The Art Journal, with the aid of an entirely new process of his own invention, had been able to reproduce every detail of Triqueti's drawings and had also improved the cement so that it was as durable as the marble itself. The writer in The Art Journal went on to suggest that the importance of Destréez's technical contribution was evident when this, and the Marmor Homericum, were compared with the earlier Visitation (which, as we have seen, has lost some of its cement), and stated that Triqueti would have acknowledged his former pupil's work by including his name with his own on the tarsia panels had he lived. 57

Triqueti (and Destréez) executed one final example of marble tarsia in 1870: the Yates Memorial presented to University College Hospital by Charles J. Hare in memory of the benefactor, Edward Yates. Like the *Marmor Homericum* and the panels in the Albert Memorial Chapel, the Yates memorial combines the tarsia technique with Florentine mosaic, but some of the hard stones in the side panels of the later work are left raised. Moreover, the memorial incorporates two freestanding statuettes on the lower section.⁵⁸ Even at this late stage in his career, Henri de Triqueti was willing to experiment further with a process on which he had worked intermittently for nearly thirty years.

Although initially conceived in France, and first considered in relation to the tomb of the Emperor Napoleon I, ultimately all Triqueti's tarsia panels that were used as wall decoration were for English locations and for English patrons. These all date to the 1860s, a period when there was considerable interest in new decorative techniques for ceilings and walls, including glass and ceramic mosaic, as is evident in the Albert Memorial Chapel and the South Kensington Museum. One appeal of the technique for England seems to have been its durability. At the time the Teffont Evias panel was completed, it was stressed that the process was ideally suited to the damp English climate: 'It recommends itself by its perfect durability, and the indestructible character of its colours, attributes of no mean value in this country, where the effects of our humid climate render the preservation of other forms of mural decoration, such as fresco painting, both doubtful and difficult'. 59 Other commentators (including an earlier writer in Wiltshire Archaeological and Natural History Magazine) remarked not only upon the durability but also the speed and moderate cost of the process; and several suggested that it would 'inaugurate a new era in the mural decorations of the interiors of our churches and public buildings'. 60 In the event, however, the marble tarsia process seems to have died out with its inventor in the 1870s.

The panel in Teffont Evias Church occupies an important intermediate stage in Triqueti's development of the process. A larger and more complex composition than the experiments of the 1840s, it gave the sculptor an opportunity to execute a piece for a particular location and thus to gauge its effectiveness and practicality for wall decoration. The exhibition of the panel in London in 1863, following on from those shown in the 1862 International Exhibition, perhaps encouraged further commissions such as the Marmor Homericum. The later examples show a greater range of coloured marbles and cements, an elaboration of the borders, and far richer detail in the pictures than the Teffont Evias panel due (at least in part) to the technical contribution of Jules Destréez. The interest of Triqueti's marble tarsia as an example of nineteenth-century revivalism and technical virtuosity, and the paucity of executed works, afford the Teffont Evias panel a special position in the development of the process and, as the first one actually used for wall decoration, it deserves to be more widely known.

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Notes

- Documents in the Royal Archives are prefixed by the letters RA and are quoted with the kind permission of Her Majesty Queen Elizabeth II.
- ¹ Nikolaus Pevsner, revised by Bridget Cherry, The Buildings of England Wiltshire (Harmondsworth: Penguin Books, 1981), 518. Sgraffito, a decorative technique used in a variety of materials, involves layers of different colours being applied to a surface. The design is scratched through the top layer to reveal the colour underneath.
- ² Sylvain Bellenger, 'Henri de Triqueti et l'Angleterre', A. Gonzales-Palacios (ed.) Antologia di Belle Arti, La Scultura (Turin, 1996), II, 183-200 mentions the Teffont Evias panel as 'Probablement toujours en place dans la chapelle de Teffont Manor'.
- ³ For Triqueti see Bellenger 'Henri de Triqueti'; Stanislas Lami, Dictionnaire des Sculpteurs de l'Ecole français, XIX, (Paris, 1914-1921), IV, 318-324; Un âge d'or des arts décoratifs, 1814-1848, (Paris: Réunion des musées nationaux, 1991); Henri de Triqueti 1804-1874. Le prince gisant. Histoire et restauration du gisant de Ferdinand d'Orléans (Montargis: Editions du Musée Girodet, 1990).
- ⁴ The process is described in J. and M. Davison The

Triqueti Marbles in the Albert Memorial Chapel, Windsor: a series of photographs executed by the Misses Davison (London: Chapman & Hall, 1876), ii-iii.

- ⁵ Charles Clement Artistes Anciens et Modernes (Paris, 1876), 324.
- ⁶ Bellenger, 'Henri de Triqueti',190-1; M.H. Port (ed.) *The Houses of Parliament* (New Haven and London: Yale University Press, 1976), 268-81.
- ⁷ Leaflet describing the Marmor Homericum, 1865, Library Services, University College London, Ms. Add. 332, 94.
- ⁸ This commission is discussed in François Legrand ' L'echec des "tarsias" aux Invalides', F. Hamon & C. MacCallum (eds.) Louis Visconti 1791-1853 (Paris: Délégation à l'action artistique de la ville de Paris, 1991), 181-183 and in Michael Paul Driskel As Befits a Legend Building a Tomb for Napoleon 1840-1861 (Kent State University Press, 1993), 146, 150-153.
- ⁹ Legrand, 'L'echec des "tarsias" ', 183. A surviving drawing for the scheme is reproduced in Legrand, 181. As compensation, Triqueti was commissioned for a marble figure of Christ on the Cross for the main altar (Driskel, As Befits a Legend, 150-151). The walls of the peristyle were subsequently decorated with marble bas-reliefs after the designs of Pierre-Charles Simart.
- ¹⁰ La Visitation [no.4916] and La Paix et la prosperité publique [no. 4917]. Lami, Dictionnaire, 322. J. and M. Davison, The Triqueti Marbles, ii states that Triqueti was working on these panels in 1845.
- ¹¹ The Art Journal, April 1862, 10. Henry Cole records seeing Triqueti's incised marbles on 3 March 1862, and that they were in place in the exhibition building on 12 June 1862. National Art Library, Henry Cole Diaries.
- ¹² Bellenger, 'Henri de Triqueti', 186-90.
- ¹³ Museum no. 8014-1862. Signed and dated 1847, the panel measures 7 feet 2 inches high by 4 feet 11 inches wide.

La Paix et la prosperité publique panel seems to have remained in Triqueti's possession until after his death in 1874 when it was given to the Girodet Museum at Montargis, probably by his daughter Blanche Lee-Childe (Information kindly supplied by the Museum). Signed and dated 1845, its dimensions (H. 2.330m. by W. 1.440 m.), format and colours correspond to La Visitation panel. It is illustrated in Bellenger, 'Henri de Triqueti', 194, where it is referred to as for Napoleon's tomb.

- ¹⁴ 11th Report of the Science and Art Department (London, 1864), 178.
- ¹⁵ John Physick, The Victoria and Albert Museum The History of its Building (London, 1983), pp.62-67.
- ¹⁶ The original museum description states the panel is 'in white and tinted marble, with black outlines on grey ground'.
- 17 J. and M. Davison, The Triqueti Marbles, iii, suggested

that the grooves for the cement had to be wider at the top than at the bottom, and that the edges needed to be roughened in order for the material to remain in position.

- ¹⁸ These proposals are discussed in Victorian Church Art (London : Victoria and Albert Museum, 1971), 86-87 and Bellenger, 'Henri de Triqueti', 194-5.
- ¹⁹ For the Mayne family, see *The Victoria History of the Counties of England* vol. XIII South-West Wiltshire: Chalke and Dunworth Hundreds (Oxford University Press, 1987: hereafter VCH XIII),189; Sir Richard Colt Hoare, Bart. *The Modern History of South Wiltshire* vol. IV (London: J.B.Nichols & J.G. Nichols, 1829), 112-113. On J.T. Mayne's death in 1843, the manor was held by his wife Sarah (1800-1871) until 1852 when it passed to Emily Harriette.
- ²⁰ Pevsner, Wiltshire, 518; VCH XIII, 193; Church Guidebook (1998), 5-6.
- ²¹ Peter, 1st Count De Salis (1675-1749) and his descendants were created Counts of the Holy Roman Empire by the Emperor Francis I of Austria in 1748 in recognition of his services at the Treaty of Utrecht. His only son and heir, Jerome (1709-1794) was naturalised in 1730 and in 1735 married the Hon. Mary Fane, eldest daughter of 1st Viscount Fane. Their grandson, Jerome, 4th Count (1771-1836) (William's father) was granted the right to use the surname of Fane and to bear the arms with the family arms in 1835. Royal licence to bear the title Count in England was granted in 1809. Rachel E.F. Fane De Salis De Salis Family English Branch (Henley-on-Thames: Higgs & Co., 1934); John P. De Salis The De Salis Family in the British Commonwealth. Geneological Tables and Short Notes on past and present members (printed for private circulation, 1959).
- ²² Rachel De Salis, *De Salis Family*, 179-209. William Fane De Salis published accounts of his travels: Introductory Remarks to a residence in Australia, and to Travels in China and India (c.1890) and Reminiscences of Travel in China and India in 1848 (Waterlow & Sons, 1892).
- ²³ On Emily's death in 1896, the estate passed first to her sister Margaret Helen Mayne (1824-1905), and then to the youngest sister Ellen Flora Mayne (1828-1907), wife of Maurice Keatinge (1816-1896).
- ²⁴ Rachel De Salis, De Salis Family, 261.
- ²⁵ Ibid; VCH XIII, 195; Lady K.L. Keatinge, *Teffont and the Mayne Family*, unpublished typescript, 101.
- ²⁶ Rachel De Salis, *De Salis Family*, 261.
- ²⁷ VCH XIII, 186.
- ²⁸ Salisbury Journal, 31 October 1863, 8. The guidebook to the church records that the 'badly deteriorated' 19th century stained glass was replaced between 1951 and 1960. Richard Kemm visited the church in 1868. His interest was in memorials and inscriptions so, whilst he noted the window and the brass plaque underneath recording the circumstances of its

donation, he made no reference to Triqueti's panel which was in place by that date. Kemm Manuscript, 361, WAHNS Library. The brass plaque no longer survives in the church.

- ²⁰ The scrapbook, in a private collection, contains newspaper cuttings about Boehm but also the sculptors Albert Bruce Joy and Harry Hems. Boehm's marble bust of William Fane de Salis was exhibited at the Royal Academy in 1867 (no. 1056) but it was sold in the 1940s, reputedly to a student who used it as a practice block. (I am grateful to Mr. Rodolph de Salis for this information).
- ³⁰ The Art Journal, August 1859, 258. The Art Journal, July 1860, 222 refers to this piece being exhibited again in 1860, together with other works by Triqueti. The De Salis Faun was bequeathed by Emily to the British Museum in 1896 (Emily De Salis's will, dated 1894, kindly provided by Mrs. Elrington) but has not been traced (Bellenger ,'Henri de Triqueti', 200 illustrated).
- ³¹ The exact date of the commission has not come to light but, judging from other examples, this panel would have taken about one year to complete and, therefore, was probably commissioned sometime in 1862.
- ³² I am grateful to Mr. Rodolph De Salis for this information.
- ³³ See note 13.
- ³⁴*The Building News*, 31 July 1863, 590. *The Salisbury Journal*, 31 October 1863, 8 states that the panel was also shown at a meeting of the Fine Arts Society held at the Marquis d'Azeglio's in London where it attracted considerable attention.
- ³⁵ The Salisbury Journal, 31 October 1863, 8.
- ³⁶ *Ibid.* This review was re-printed in *The Builder*, 31 October 1863, 771.
- ³⁷ A volume of designs for the Marmor Homericum, compiled by Triqueti and presented by him to Grote in 1871, is in Library Services, University College London, Ms. Add. 332. The inside cover records that the work was 'commandé en novembre 1863', but a letter on p.2, dated 27 August 1863, records that Triqueti and Grote had met that day in Basle to discuss the project 'après nos premières ouvertures de Londres', suggesting that the idea was mooted earlier.

The exhibition of the Teffont Evias panel was probably one of many factors leading to this commission. George Grote possibly saw Triqueti's work at the 1862 International Exhibition or his wife may have suggested the commission. In 1860 Mrs. Grote had published a biography of the painter Ary Scheffer (who had been responsible for the overall design of the cenotaph of the duc d'Orléans executed by Triqueti in 1842-3) in which she referred to Triqueti as 'a genuine artist and sculptor'. Mrs. Grote Memoir of the Life of Ary Scheffer (1860), p.67.

³⁸ A commemorative volume of photographs was

published by S. Thompson, with text by P. Stanhope-Worsley entitled *Marmor Homericum designed and executed by Henry de Triqueti* (London: Day & Son, 1866).

- ³⁰The smaller tarsia panels represent : *Minerva restraining Achilles; The Departure of Odysseus from Calypso; Priam asking Achilles for the body of Hector;* and *Odysseus attacking the suitors of Penelope.* The allegorical figure on the left, from *The Iliad*, suspends the shield of Minerva at the feet of Victory; the figure on the right, from *The Odyssey*, is shown clinging to a column after being shipwrecked with a statue of Neptune above.
- ⁴⁰ See Elisabeth Darby & Nicola Smith The Cult of the Prince Consort (New Haven and London: Yale University Press, 1983) chapters 1 and 2.
- ⁴¹ An account of the Albert Memorial Chapel is given in Darby & Smith, *The Cult of the Prince Consort*, 30-40. See also Philip Ward-Jackson 'The French Background of Royal Monuments at Windsor and Frogmore' *Journal of the Church Monuments Society* vol. VIII, 1993, 63-83.
- ⁴² Darby & Smith, The Cult of the Prince Consort, 32.
- ⁴³ Philip Ward-Jackson, 'The French Background', 67.
- ⁴⁴ Philip Ward-Jackson, 'The French Background', 70. Triqueti was to describe Prince Albert as 'the greatest & best man he had ever known', RAVIC/R40/75.
- ⁴⁵ S. Bellenger, 'Henri de Triqueti', 183-4.
- ⁴⁶ Glass mosaic by Antonio Salviati was used instead for the ceiling decoration. Darby & Smith, *The Cult of the Prince Consort*, 32.
- 47 RA PP /Windsor /526; RA VIC/R40/31,43,44.
- ⁴⁸ RA PP/VIC/Add/2145 Mrs Fane De Salis to Sir Thomas Biddulph 19 October 1864.
- ⁴⁹ Darby & Smith, *The Cult of the Prince Consort*, 110, note 85. Susan Durant, while working on the Albert Memorial Chapel, arranged with Mrs Fane De Salis to view her master's work at Teffont, possibly in 1866 RA VIC/Add X 2/85. (I am grateful to Mrs. Kelsey,

Deputy Registrar at the Royal Archives for this reference).

- ⁵⁰ RA VIC/R40/43, 44; J. and M. Davison, *The Triqueti* Marbles.
- ⁵¹ RA PP/ Windsor/ 655.
- ⁵² RA PP/Windsor/ 740; RA PP /Windsor/ 790D.
- 53 RA VIC/Add X/2 212/D.
- ⁵⁴ In addition to the tarsia panels and the cenotaph to Prince Albert, Triqueti also executed the marble benches under the panels, the reredos at the east end of the chapel, and the figures representing the Angel of Death and the Angel of the Resurrection for either side of the west door : the latter two sculptures were incomplete at the time of his death.
- ⁵⁵ RA VIC/R40/75.
- ⁵⁶ J. & M. Davison, The Triqueti Marbles, iii.
- 57 The Art Journal, 1874, 368.
- ⁵⁸ S. Bellenger,'Henri de Triqueti', 196 illustrates a drawing for the memorial.
- ⁵⁹ The Salisbury Journal, 31 October 1863, 8.
- ⁶⁰ Ibid.; The Daily Telegraph, 31 January 1870; Wiltshire Archaeological and Natural History Magazine, vol. XII, 1872, 102. The latter commentator was writing in relation to the Church of St. Mary and St. Nicholas, Wilton by T. H. Wyatt (1841-5), and expressed the hope that 'now that Triqueti....and others have made the acquisition of this ornamental completion of ceilings and walls both easy and inexpensive, it does seem a matter of regret that some true lover or lovers of the beauty of holiness should not take in hand the introduction of mosaic into at least the central apse of the church...'. In the early 20th century, the original painted decoration was replaced by mosaic executed by Gertrude Martin to the designs of Sir Charles Nicholson, first in the central apse and later in the south apse. Royal Commission on the Historical Monuments of England. Churches of South-East Wiltshire (London: HMSO, 1987) 215, 217; Pevsner, Wiltshire, 578.



'That Terrible Woman': the Life, Work and Legacy of Maud Cunnington by Julia Roberts

This paper is an attempt to reassess the life, work, and legacy of the Wiltshire archaeologist Maud Edith Cunnington (1869-1951). It is argued that Mrs Cunnington's work has been dismissed for reasons to do with her personality rather than any inherent faults in her archaeological judgement. By discussing how archaeologists are remembered, the constraints middle class women faced at the end of the 19th and beginning of the 20th century, as well as investigating the developing discipline of archaeology, it is hoped that a clearer picture of Mrs Cunnington's achievements can be reached.

INTRODUCTION

As one of the most important members of the Wiltshire Archaeological and Natural History Society in the first half of the 20th century, Maud Cunnington presents an interesting study for a variety of reasons. She was a well known and respected figure in archaeological circles at a time when few women were involved in archaeology and when British social expectations were that women would be if not invisible, then certainly in the background.

Maud Cunnington came from a comfortable middle-class environment, and married into an equally sheltered existence (Figure 1). After her marriage, Maud Cunnington could have retired into this life, taking a leading role in small town society, yet she chose instead to turn her attention to archaeology. Her nephew, Colonel R.H. Cunnington believed this was due to her desire to be involved with the interests of her husband and son (R.H. Cunnington 1954, 288), a reading of women's roles which permeates so much of 19th and early 20th century writing:

....a man ought to know any language or science he learns thoroughly: while a woman ought to know the

same language and science only so far as may enable her to sympathise in her husband's pleasure. (Ruskin 1865)

However, a desire to be a helpmeet to her husband hardly serves as sufficient explanation of how Maud Cunnington progressed from being the follower in Ben Cunnington's footsteps to the leader in their archaeological ventures. Nor does it do justice to the energy and enthusiasm with which Maud Cunnington approached her self-appointed task, or the public spirited nature of her work. She published on a wide variety of subjects ranging through all archaeological periods from Neolithic to medieval and became a recognised pottery expert. Mrs Cunnington not only excavated prestigious sites such as All Cannings Cross, Woodhenge and the Sanctuary, but also the less well known sites of Lidbury, Morgan's Hill, and Lanhill, as well as conducting rescue excavations at, for example, Netheravon and Battlesbury. One might question Maud Cunnington's techniques of excavation, or her interpretation of sites (and this paper seeks to demonstrate that she has been overly criticised for these), but one cannot question her commitment to bringing archaeology to as wide an audience as possible.

Yet despite these undoubted achievements Maud Cunnington is now a forgotten figure outside Wiltshire, and even within Wiltshire her contribution to archaeology has perhaps been undervalued. This paper is intended to reassess her contribution to Wiltshire archaeology and also to demonstrate how personal reactions, as much as archaeological criticisms, colour the way we interpret the work of past practitioners.

The problem with the criticisms of Maud Cunnington is that so few appear in print; Wheeler's mild comments on An Introduction to the Archaeology of Wiltshire (Cunnington 1933a) were the only ones made during her lifetime (see below). It is for this reason that emphasis has been placed on the censures voiced by Pitts (2000). Nowhere else is there a published critique of Maud Cunnington's work and techniques; everything else is ephemeral, based on hearsay and received opinion. People who never met Maud Cunnington react in horror to her name. While those that did know her, for example Peggy Guido and Stuart Piggott, described her as 'terrible' or 'horrible', when pressed as to how this awfulness manifested itself very little information was forthcoming. One would expect such a dreadful reputation to stem from an incident or series of incidents and vet Stuart Piggott merely recalled her 'icy blue eyes and icy blue voice' (pers. comm.). Alexander Keiller's personal and professional animosity recorded in his correspondence is referred to by Murray (1999, 108, 121) and Pitts (2000, 45), but neither of these authors refer to the complimentary letters that Keiller sent to Mrs Cunnington praising her work and erudition (e.g. Alexander Keiller Museum ref. 8805128), which ensures that only one side of the story is heard.

The main difficulty is that Maud Cunnington has no voice of her own. There is no personal archive like that of Keiller to consult. Cunnington's voice comes from her obituaries and the memoirs of her family, but it is such a quiet voice, one that barely reflects her and only really reflects her work. She has, in effect, been silenced. While this paper cannot give her back her voice, it is an attempt to provide a broader picture of her life and work.

This paper is not intended as an exhaustive account of Maud Cunnington's work, partly because of the sheer volume of her work (Appendix 2). Rather than approaching this subject from an archaeological standpoint, here an attempt is made to assess her life in more general historical terms. Because the criticisms of Cunnington have focussed on her excavation techniques, this paper concentrates on her excavation reports rather than her syntheses such as 'Romano-British Wiltshire' (Cunnington 1930b). The archaeology of the sites in question has been examined only where it contributes to the more general argument. Therefore Manton Barrow is discussed as the first excavation with which she was involved; Oliver's Camp because of the development of her style and the inclusion of an explicit research strategy; All Cannings Cross, the excavation which brought her the most renown; and Woodhenge because of the criticism it has subsequently received.

LIFE

Maud Cunnington was born in 1869. She was one of seven children, the youngest daughter of Dr Charles Pegge and Catherine Leach, and the granddaughter of R.V. Leach, the owner of Devizes Castle. She was educated at Cheltenham Ladies College, one of the few schools at the time to offer an academic education for girls (Vicinus 1985, 169). We are told by Cunnington family memoirs (R.H. Cunnington 1954; E. Cunnington n.d.) that Maud became interested in archaeology only through her husband and son who were following in the family antiquarian tradition which had begun with Colt Hoare's collaborator William Cunnington, and had continued through following generations. From the inception of the WANHS in 1853 there was rarely, if ever, a time when the committee was without a Cunnington representative. In 1887 Ben Cunnington's father Henry had died and Ben had taken over the running not only of the family business but also the role of honorary curator of the Wiltshire Society's museum in Devizes. Yet this does not really explain why Maud Cunnington became an archaeologist. Her own family seems to have had a strong interest in history. Her sister Elsie was an historian and married Jack Allen, the Professor of History at Bedford College, while her brother Ernest was an expert on the Vikings and Viking Sagas. Maud Cunnington herself had originally been interested in church architecture (R.H. Cunnington, 1954, 228), but how this translated into more secular concerns is not addressed by her obituarists or biographers.

Following their marriage in 1889 Ben and Maud Cunnington forged an archaeological partnership that dominated Wiltshire for fifty years. Not only did Maud become involved in Ben's curatorial work, in 1907 the Cunningtons began a series of excavations that were to define local prehistoric archaeology and give valuable assistance to the interpretation of the Neolithic and Iron Age in Britain. These excavations included work at Manton Barrow, Oliver's Camp, Knap Hill, All Cannings Cross, Woodhenge, the Sanctuary and Yarnbury. Aside from the excavation reports Maud Cunnington wrote more general articles in WANHM, Antiquity, the Archaeological Journal and Archaeologia Cambrensis. She also published several books, such as The Pottery from the Long Barrow at West Kennet, Wilts. (1927a) and An Introduction to the Archaeology of Wiltshire (1933a). This substantial body of work led to her being recognised as one of the foremost archaeologists of her day (Wheeler 1923, 150), and resulted in her election to Vice-President and then President of the WANHS. She was awarded a CBE in 1948, and in 1931 was elected as an honorary fellow of the Society of Antiquaries of Scotland. This was an exceptional honour. Maud Cunnington was only the second woman to be elected and she was in extremely illustrious company, other honorary fellows including Montellius, Petrie, John Evans, and l'Abbé Breuil.

Of Maud Cunnington's life outside archaeology we know very little. In 1890 Edward, Ben and Maud's only child, was born. He was killed in action in 1917. Ben Cunnington died in 1950 followed by Maud, after a long illness, in 1951. Part of the reason for this lacuna is that the memoirs of the Cunnington family have been written by Cunningtons more interested in documenting the archaeological achievements of the family rather than a general view of their lives (R.H. Cunnington 1954; E. Cunnington n.d.). It can also be suggested that this lack of information stems from women's lives having been traditionally seen as unimportant. None of the information that we have for Maud's life mentions anything other than her work or motherhood. A prime example of this gap can be seen in the way we are told that during the First World War Ben was sent to France as a Provost Marshall, Edward volunteered as a military doctor, yet Maud went to London and did unspecified 'war work' (Anon 1917, 152, 474). We have no information about her private thoughts, how she felt about her son's death, or why her archaeological work intensified through the 1910s and '20s. We only have the personal reminiscences of a later generation and a substantial body of archaeological work to draw upon. Maud Cunnington dominated the Wiltshire Society at a time when there were few women members or contributors to the magazine. Although she was not the first woman to publish an article in *WANHM*, no other woman before or since has been so prolific.

That she achieved so much is particularly surprising when we consider that she lived and worked at a time when women had little legal status and were debarred from many forms of employment. When Maud Cunnington was born women had few rights. They could legally be incarcerated against their will or beaten by their husbands or fathers. Women were not allowed to vote, or to attend university. If married they could not own property, if divorced they could not retain custody of their children. Throughout Maud's life there were incremental gains in the status of women in this country, but it was a long and slow process to combat the entrenched attitudes of British society. Archaeology was not immune from these attitudes; although the county societies, including Wiltshire, accepted women members, the criteria for their election were not always the same as for men.¹ However, the national antiquarian societies prohibited women from becoming fellows and, although papers by women might be published in their proceedings, they were not allowed to address the meetings. It was not until 1920 that the Society of Antiquaries of London submitted to the Sex Disgualification (Removal) Act, and finally admitted women fellows.² Although these points may seem irrelevant to a discussion of the work of Maud Cunnington, it cannot be over-emphasised that she worked in a predominantly male world and while women may have been tolerated, they were not always welcomed; an attitude of which Maud Cunnington seems to have been aware (see below).

WORK

Before discussing how Maud's work was viewed by her contemporaries and later archaeologists, some description of that work is needed. Although interested in all aspects of archaeology the Cunningtons only excavated in Wiltshire. Their partnership was so closely melded that in her obituary the writer stated:

To disentangle Mrs Cunnington's contribution from that of her husband's would be a difficult and, indeed, a thankless task; their work was too closely associated for either's part alone to present an intelligible picture. (Anon 1952, 104) But we are given some indication of how they divided their labours. In Ben Cunnington's obituary we are told:

His was not, perhaps, the mind that leapt first to the meaning of the evidence exposed, nor his the hand that drew the plans or built the sherds into cups and pots before the winter fire. But his was the hand that welcomed you to the garden room in Long Street, or to the tent pitched in the summertime beside a remote earthwork in the downs, and his was the voice that greeted you so cheerily. (Anon 1950, 499-500)

R.H. Cunnington gave a fuller picture of their partnership during the late 1920s:

At that time their respective roles were well defined. He would engage the diggers, never more than half a dozen, and organise the work to economise labour as much as possible but without scamping it... ...[he] would usually act as a pioneer, with one of the men opening up the ground for subsequent excavation... ...Maud's part was to decide what should be dug, and in what order, and to exercise general supervision... ...Neither actually dug unless to take out some ticklish object needing special care... ...When anything of special importance appeared, W.E.V. Young, the foreman digger.. ...who was very skilful and experienced, was called upon to take over with the trowel. (R.H. Cunnington 1954, 229-30; and see also Cunnington 1908a, 2)

After excavation Maud was again firmly in charge. She studied the pottery and other finds, drew up the records and wrote the excavation report. It is strange that it was Maud not Ben who wrote the reports, given that Ben had worked as a journalist with the Central News Agency, and continued to write on historical topics. R.H. Cunnington suggested that Ben's forte was as a raconteur rather than as a writer, although he did scrutinise the reports:

...but only to correct the style, not the matter: his admiration for her and her work was too deep to ever call that in question (1954, 230)

This was an admiration that R.H. Cunnington obviously did not share, since although he praised the completeness of Maud's excavation reports he stated that she 'had no gift for writing' (1954, 230). This judgement seems overly harsh and does little justice to the swiftness with which her writing style and archaeological knowledge developed.

Manton Barrow and All Cannings Cross

Manton Barrow, an Early Bronze Age burial mound excavated in 1906, was the first report that Maud Cunnington wrote. This report (Cunnington 1908a and b) covered the main points of the excavation: the size of the trenches; the location of finds; a description of the interment; notes from specialists; and detailed descriptions of the grave goods. However, there were no plans or sections, or informative photographs of the trenches. The interpretation was minimal and the writing style was flowery and verbose:

..there are the flint tools of mysterious palaeolithic men from the gravels of Savernake Forest, the stupendous and no less mysterious Avebury temple and Silbury Hill, the cromlechs and the barrows – derelicts stranded from the unfathomed depths of time. It is the human element in these relics of the past that make them of surpassing interest – even of fascination to us; they are the labours of human hands, the creation of human brains, the embodiment of the ideas and of the aspirations, the hopes and the fears of men and women like and yet unlike ourselves – our predecessors in the land, if not actually our ancestors. (Cunnington 1908b, 1–2)

In Maud Cunnington's defence, this was her first report and all its faults are those common to excavation reports in county journals of the time. It would seem that she herself was dissatisfied with her presentation of the evidence. Her next report, on the Iron Age site of Oliver's Camp, was published in the same volume of WANHM (Cunnington 1908c) and the style had changed dramatically. Rather than evoking the shades of the Bronze Age folk, Maud Cunnington presented a history of antiquarian interest and conjecture about the site, before turning to the work of Pitt-Rivers for guidance (1908c, 416-7). Ken Annable suggested that these references to Pitt-Rivers are the key to the change in her style. She had met Pitt-Rivers during his excavations at the Wansdyke some years earlier (R.H. Cunnington 1954, 229), but Ken Annable feels that between the Manton Barrow and Oliver's Camp excavations, Maud Cunnington had read Excavations in Cranborne Chase and realised that her own style was too romantic and insufficiently scientific (pers. comm.). Certainly, in the Oliver's Camp report she included plans and sections (Figures 2 and 3) and, unusually for

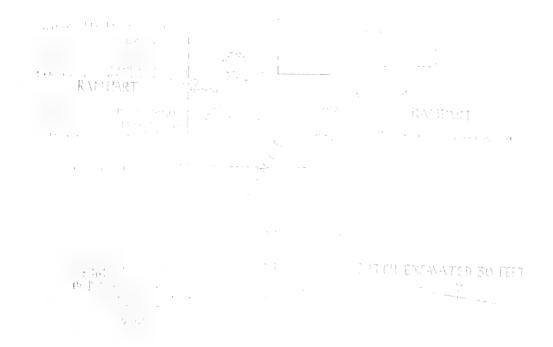


Fig. 2. Oliver's Camp: plan of entrance excavation (after Cunnington 1908c)





- A. Undisturbed Chalk.
- E. Surface soil.
- B. Chalk forming Rampart.
- D. Ancient Turf lines.
- G. Filling-in.
- C. Silt.

archaeology at this period, detailed contextual information. More interpretation was included, such as this succinct discussion of the rampart stratigraphy:

It is scarcely possible that a rampart can be older than the remains which are contained in it, in such positions as these, and if this pottery is more recent than the Bronze Age the rampart must be also. (1908c, 419)

Nor was Maud's new found expertise restricted to excavation and publication techniques. She also expressed awareness of more general archaeological problems:

The exploration of earthworks has been neglected in the past far more than their intrinsic interest has deserved. Some of the reasons for this neglect are obvious enough. The chances are, that, from the relic hunters point of view, the results will be disappointing; ramparts are apt to be unproductive, and searching for scanty fragments in the silt of the ditches is often dull work, and much time and labour may be expended without any very tangible results. It is so much quicker and simpler to explore a barrow, that it is little wonder that our knowledge of barrows is comparatively ample while of earthworks it is still so meagre. As the contents of many barrows had to be recorded before much light was thrown upon their history, so the examination of many earthworks is needed to help interpret the history of one. (1908c, 419)

After Manton Barrow the Cunningtons focussed their interest primarily on non-funerary sites, which in the light of this statement must have been a research strategy chosen for the good of Wiltshire archaeology.

Further seasons of excavation followed, including Knap Hill in 1908 (Cunnington 1911), which was arguably the first causewayed enclosure to be recognised in this country (Anon 1952, 105; Oswald et al. 2001, 12-13). But it was the excavation of the Iron Age site at All Cannings Cross which made Maud Cunnington's name as an archaeologist outside the confines of Wiltshire. The publication of this site was hailed as 'one of the finest publications in recent years' (Kendrick and Hawkes 1932, 160). The irony is that the Cunningtons began their excavations unaware of the site's importance (Cunnington 1923b, 13) and the amount of work needed to do it justice. However, having started, the Cunningtons continued until - at least by the standards of the time - the excavations were complete. This dedication is particularly admirable when one considers that, as ever, their excavations were self funded, and that their time at All Cannings Cross was interrupted not only by the First World War but also Edward's death in 1917.

All Cannings Cross became a reference point for many later studies of the British Iron Age. Furthermore, the report shows Maud Cunnington gaining confidence in her archaeological abilities and developing her own ideas on prehistory, ideas which would affect her interpretation of other sites, and in particular Woodhenge. At the end of the All Cannings Cross report is a section entitled 'The sequence of types of pre-Roman pottery in Wiltshire' in which she argued for a more fluid pottery sequence, and therefore chronology, than previously accepted. Maud's suggestion was that because known Bronze Age pottery was predominantly from funerary contexts, whereas Iron Age pottery was predominantly from domestic contexts, there could be a chronological overlap between the two styles (Cunnington 1923b, 194-5).3 While this assertion is patently flawed, in the context of the 1920s and early '30s, with so little known about typological sequences, the suggestion of contemporaneity of pottery styles had plausibility.

Woodhenge

Woodhenge is an enclosed multiple timber circle close to the large henge at Durrington Walls. The site was originally believed to be a disc barrow but aerial photographs by Squadron Leader Insall in 1925 revealed concentric rings within the earthwork (Wainwright and Longworth 1971, 207). The site was excavated between 1926 and 1928, and the work was reported with typical Cunnington thoroughness (1929), but Maud's interpretation of the monument proved extremely controversial. Her assertion, on the basis of the work at Woodhenge, that Stonehenge was a single phase monument of Iron Age date was immediately disputed (Engleheart 1930, 142-3). It is this assertion which has been remembered and ridiculed⁴ and is, arguably, partly responsible for her diminished reputation. However, if we study her argument in detail, and without the benefit of hindsight, it does demonstrate a certain logic, even if it equally demonstrates inconsistencies. At Woodhenge Maud Cunnington uncovered a timber monument of concentric circles. In the absence of similar wooden sites, she turned to Stonehenge for comparisons (Figure 4). This was an obvious choice, given



Fig. 4. Woodhenge and Stonehenge compared (after Cunnington 1929)

Hawley's recent excavations at the site, and W.M.F. Petrie's statement that 'Stonehenge by its tenons and mortices is an evident imitation of wooden architecture' (Petrie 1882, cited in Cunnington 1929, 20).

Maud believed that at Woodhenge she had found the prototype for Stonehenge, a belief O.G.S. Crawford endorsed (Anon 1934, 533). Her argument rested on the basis that the timber and stone elements of the two monuments were laid out on a very similar plan, the outer ring at Woodhenge being approximately half the size of that at of the Aubrey Holes at Stonehenge, for example. But for the Woodhenge as prototype theory to work both monuments had to be single phase constructions and this argument depends on ignoring the variety of dates suggested by the prehistoric material at Stonehenge. Maud Cunnington then compounded this error by her misdating of Woodhenge, and therefore by extension Stonehenge. This error is excusable since it was based on the misdating of Grooved Ware pottery, which was not identified as Neolithic until 1936 (Warren et al 1936, 197). Maud originally believed that the pottery she had recovered from Woodhenge was late Bronze Age, because of the absence of the impressed cord ornamentation characteristic of early Bronze Age ceramics (Cunnington 1929, 26). The recovery of Beaker pottery in the ditch, and the mistaken identification

of Grooved Ware under the bank as Collared Urn, suggested an earlier date, but having decided that funerary pottery styles were conservative, Maud Cunnington would only concede a middle Bronze Age date for the site at the earliest.⁵

Having dealt with the problem of the date of Woodhenge, Maud then turned to Stonehenge. On the basis that it must be later than its prototype and with supposedly Iron Age pottery recovered from the Y and Z holes, she suggested an Iron Age date (Cunnington 1930a, 112). It was at this point that her argument completely foundered. Although she was not alone in suggesting Stonehenge was a single phase monument (R.H. Cunnington 1935), or indeed in debating the date of its construction, her conclusions relied, as Engleheart pointed out, on 'laboured special pleading' (1930, 143). Even without hindsight, on the evidence that had been recovered by the 1930s, her argument was flawed. Because she wanted Woodhenge to be a model for Stonehenge every possible shred of evidence was used to prove this and anything which contradicted her argument was ignored or distorted.6

There was, as mentioned above, instant objection to this conclusion, although Engleheart was the most outspoken in print. Kendrick and Hawkes, who elsewhere were extremely complimentary of Maud Cunnington's work, pointed out;

It is obviously difficult to account for the discovery of Beaker pottery at Stonehenge if we are to believe that it is a 'one period structure' erected some considerable period after Woodhenge (1932, 94)

Regardless of this disagreement, Maud Cunnington continued to believe and publicise her own theory. The excavations at the Sanctuary (Cunnington 1931) were used to reinforce the view that wooden monuments were generally succeeded by stone ones. Although she recognised the multiphased nature of the Sanctuary, this did not lead her to believe in a multi-phase Stonehenge. Even the recognition of Grooved Ware as Neolithic and therefore Woodhenge as a Neolithic monument, did not result in any reassessment of her ideas. In the 1938 edition of the Introduction to the Archaeology of Wiltshire she still maintained Woodhenge was Bronze Age, although now she conceded early Bronze Age (1938, 62-5), and that Stonehenge was a single phase monument of Iron Age date (1938, 52).

It should however be stressed that it is only with hindsight that we can categorically state that Maud Cunnington was wrong in her opinions. Archaeologists in the 1920s and 30s could argue with her conclusions, but with prehistory as a subject in its infancy, even after the Stonehenge excavations, they could not conclusively prove her wrong. The Cunningtons continued to excavate and Maud continued to be considered an authority in the archaeological world: she gave a paper at the International Congress on Prehistoric and Protohistoric Sciences in 1932 (Grinsell 1989, 52); was the president of the WANHS in 1933; and was made an honorary fellow of the Society of Antiquaries of Scotland in 1931. She published excavation reports on the Sanctuary (Cunnington 1931) and Yarnbury (Cunnington 1933b), she argued Belgic invasions with Hawkes and Dunning in the Antiquaries Journal (Cunnington 1932a), and in 1933 her synthesis of Wiltshire archaeology was received with acclaim:

This book has long been needed, and none other than Mrs Cunnington could so fittingly have written it. (Wheeler 1934, 203)

Although Wheeler noted omissions, such as reference to the work E.T. Leeds had undertaken on the Anglo-Saxons, and errors such as her adherence to the old Abercromby classification of Beakers, he concluded:

A last word on the book, however must be one of appreciation for a manual which is a tribute alike to the archaeological wealth of the county and to the ability of its antiquaries, amongst whom the author herself holds a high place. (Wheeler 1943, 204)

Despite Mortimer Wheeler's praise, An Introduction to the Archaeology of Wiltshire was the last substantial work Maud produced. By the time of its publication she was 64 and her indefatigable energy was running out. Yarnbury in 1932 was to be the last excavation of the Cunnington partnership. While Ben continued publishing historical articles, Maud's contribution diminished drastically (Appendix 2). Although a revised edition of the Introduction was printed in 1938 (with a fourth edition in 1948), and she was awarded a CBE in 1948 for her services to archaeology, she became an increasingly forgotten figure in the years before her death, and fifty years later her name evokes little recognition outside Wiltshire.

In part this marginalisation was inevitable. In the 1920s Maud Cunnington had followed and contributed to archaeological thought, discussing migration, diffusion, race, and trade. She relied upon new techniques such as aerial photography, for example at Woodhenge. Her excavations had helped define Neolithic and Iron Age studies, and she had become a pottery expert consulted by other archaeologists (e.g. Curwen and Curwen 1927, 29). In the 1920s Wheeler had referred to her as a revolutionary when it came to the dating of Iron Age 'camps' (1923, 151), but the developments of the 1930s and '40s largely passed unnoticed in her work. Ill health led to her retiring from active archaeology; by the late 1940s she was bed-ridden and had lost her memory (Anon 1952, 104). New techniques of excavation were developed by Wheeler and Bersu, archaeology became increasingly specialised, with workers concentrating on specific periods, such as Piggott's (1931) and Daniel's (1941) work on the Neolithic, and Hawkes (1931) and the Wheelers' (1936) work on the Iron Age. The days of the county amateur were over, and the new, increasingly professional age of archaeology had begun.

LEGACY

It could be suggested that Maud's achievement has been overshadowed by more than just the changing nature of archaeology. Whilst she has been forgotten outside Wiltshire her name reverberates in certain quarters of the county. Comparisons to Alexander Keiller are inevitable, and it is arguable that his attitude to Maud Cunnington has overshadowed her achievements. Keiller's dislike of her is wellknown. In a letter that Keiller sent to W.E.V. Young, while Young was the Cunningtons' foreman at the Sanctuary, he wrote of her as 'a very unpleasant old woman' (Keiller, quoted in Pitts 2000, 45). In fact Keiller often went further:

Oh dear, oh, dear Young. Isn't it sad! I wish that you and I had lived twenty-five years hence, or that Gray and Mrs Cunnington had expired a quarter of a century ago. (Keiller to Young 1930)⁷

Keiller seems to have felt the Cunningtons' excavation and recording techniques were impossibly lax and that he should have been in charge of the Sanctuary excavations, a view which Pitts appears to share (Pitts 2000, 45). It is true that Keiller was undoubtedly the better excavator, but that does not mean he conducted excavations to modern standards, nor does it mean that Maud Cunnington's work was hopelessly flawed. Keiller opened larger areas than the Cunningtons, insisted on straight sections and three-dimensional recording. Keiller kept drawn and photographic records, but although these techniques may look very modern he dug and recorded in arbitrary spits rather than following layers.

It was not just techniques of excavation that differed between the two camps; the whole ethos of what they were doing and why could not have been more divergent. The only common factor in the archaeology practised by the Cunningtons and Keiller was their ability to purchase the sites they excavated and to pay for the publication of their site reports. But the difference of scale makes this similarity largely meaningless. The Cunningtons purchased Woodhenge and the Sanctuary, as well as paying for their own excavations and taking part in raising funds for the public ownership of the land around Stonehenge; while Keiller's immense fortune was directed towards the excavation and purchase of Windmill Hill and Avebury. Although these two sites could be classed as more important than the Cunningtons' excavations, and there is little doubt that Keiller was the better excavator, his perfectionism was his downfall (Murray 1999, 58). Despite Keiller's good intentions to produce large-scale, lavishly illustrated final reports for Windmill Hill and Avebury this failed to happen in his lifetime (Smith 1965), somewhat negating his insistence on modern 'scientific' excavation practices. The Cunningtons' techniques and modes of reporting might have appeared amateur compared with Keiller's but their excavations were always rapidly published.

In fact, Maud Cunnington seems to have been very strongly committed to public awareness of archaeology. This theme runs through all of her work: many of her excavations were on low-key sites, practising what can be seen as an early form of rescue excavation, such as the pits in Battlesbury Camp (Cunnington 1922b, 378-9), or the salvage of the Saxon burial at RAF Netheravon (Cunnington 1939a, 469-70). Maud also recorded stray finds by workmen, like the Bronze Age urn found near Marlborough (Cunnington 1922b, 378), and the skeletons uncovered near Warminster (Cunnington 1939b, 468-9), as well as writing-up other people's discoveries for WANHM (Cunnington 1927b, 490-1; 1937a, 265) and submitting endless notes on every conceivable archaeological subject from church wall paintings (Cunnington 1937c, 420-1) to the 'Horns of Urus said to have been found in a barrow at Cherhill' (Cunnington 1937b, 583-6). She was also involved in bringing sites to the attention of the Ancient Monuments Commission so that they could be scheduled (Anon 1927, 445; 1929, 476).

The sites excavated by the Cunningtons were open to visitors, and Maud was prepared to give public lectures as well as publishing her work, even though her shyness made such practices an uneasy and uncomfortable experience (R.H. Cunnington 1954, 229; Anon 1952, 105). Nor were her publications limited to strictly archaeological forums: her Presidential speech for WANHS was published in The Wiltshire Gazette (1932b), as was her paper on 'Some Norman Castle Sites in Wiltshire' (1926). Although a great deal of Maud Cunnington's energies were devoted to excavation and publication she still found the time to write on more general archaeological topics. In 1922 she and Ben Cunnington wrote A Short Outline Guide to the Archaeological Periods as Illustrated by the Exhibits in the Museum, Devizes, which was primarily aimed at children, the Guide to Avebury (1931) catered for an adult audience, and the popularity of An Introduction to the Archaeology of Wiltshire was demonstrated by it running through four editions during the 1930s and '40s.

There was also the museum work that the Cunningtons undertook. Ben Cunnington took over as the honorary curator of Devizes Museum in 1887, and presumably soon after their marriage Maud became involved. How they divided this work between them is not recorded. It is, as ever, she who is held responsible for all that was bad about their fifty year tenure:

Her techniques were primitive, she mended pots with sealing wax and concrete⁸ ... the museum was like a mausoleum, the Colt Hoare collection was in crenellated cases full of dead flies ... there was stuff in cigarette boxes, it was terrible. (Ken Annable pers. comm.).

Yet even in this damning critique Ken Annable pointed out that Maud Cunnington's prolific work opened up Wiltshire, and with her emphasis on obtaining artefacts for the museum whenever possible she was making the information available to all who were interested. Her presentation of a series of sherds from All Cannings Cross to other museums can be seen as another way in which she was actively seeking to extend knowledge of early Iron Age archaeology to a wide audience of researchers and curators (Paul Robinson pers. comm.). Keiller may have had more awareness of modern archaeological techniques and the necessity to keep substantial records for future reference, but Maud Cunnington seems to have paid more attention to the immediate need to keep the public informed. This commitment continued after her death with her bequest of \pounds 16,000 to the Wiltshire Society, and her expressed wish that the interest on this sum would be used towards employing a professional curator for the museum (Anon 1952, 220).

Differing styles of approach caused tension between Keiller and the Cunningtons, but there were other sources of irritation. The Cunningtons were a formidable force in Wiltshire archaeology, and it cannot have helped relationships between the two camps that when Keiller decided to excavate Windmill Hill in 1925 Harold St George Gray was foisted upon him as a site director:

Owing to the agreement sanctioned by Crawford, Keiller was not permitted to excavate independently until he had proved his worth to both the Cunningtons and the Wiltshire Archaeological Society. (Murray 1999, 39)

Unfortunately the two men were unable to agree on excavation techniques and disagreed violently on numerous occasions (Murray 1999, 36, 39, 41, 43, 49 and 52).

Another source of conflict was Stonehenge. The monument had been presented to the nation by Mr Chubb in 1918. In 1929 Keiller and the Cunningtons were involved in raising money to buy the surrounding land, and demolishing the aerodrome hangers that had dominated the site since the First World War. Keiller's plan was to build a museum on the site to house the finds from Hawley's, and previous, excavations. He was prepared to pay for both the building and a curator. The Cunningtons, however, felt that having removed one set of buildings it would be perverse to build another (Murray 1999, 48). They were not alone in voicing their objections; O.G.S. Crawford, amongst others, also disagreed (Murray 1999; Chippindale 1983, 193). But it was the Cunningtons Keiller blamed:

Keiller wrote a defiant letter to the Office of Works, criticising the Cunningtons' interference in his scheme, and blamed them for 'the agitation aroused, themselves inspired by some form of museum curator's parochial jealousy'. He added that if the Cunningtons 'could possibly be persuaded to regard archaeology as a science and not merely as a personally directed local manifestation emanating primarily and finally from Devizes, not only would the said science of archaeology, but the general advantage of Wiltshire as a County be considerably advanced' (Murray 1999, 49)

These disagreements were obvious sources of rancour. Keiller felt that the Cunningtons were sabotaging his plans, foisting unwanted help upon him when he was the superior archaeologist, and ignoring his good sense when it came to Stonehenge. But these two events seem insufficient to cause the deep hostility that Keiller obviously felt towards Maud Cunnington:

It is part of AK's childish manner that he cannot write a letter on any archaeological matter without making some caustic remark about Mrs Cunnington. It has become quite a mania with him, and since it's quite evident he is on the borderline of insanity in this respect, I object to his coupling my name with this strange obsession of his... (Young, quoted in Murray 1999, 108)

Such animosity must have been provoked by other sources of conflict that, while felt, were not necessarily expressed. Maud and Ben Cunnington were the established face of Wiltshire archaeology, Alexander Keiller the brash new incomer. Moreover, Keiller was famous for his flamboyant lifestyle, his wealth, the fast cars, champagne, and ambivalent sexuality (Murray 1999, 82). This cannot have endeared him to the staid and respectable Cunningtons. If, as Brentnall and Pugh (1953, 10) amongst others have suggested, the Cunningtons saw their role in Wiltshire archaeology as a memorial to their son Edward, then although any incomer would have been unwelcome, Keiller's outrageous presence must have been particularly jarring. In later life, Peggy Guido felt it was Edward's death which had made Maud Cunnington so 'difficult' (pers. comm.).

A more general point, but one related to these two, was the generation gap between the two camps. Although Keiller was in his forties when he began excavating in Wiltshire, the assistants he employed were much younger. There was, as Stuart Piggott recorded (1963, 1-16; 1989, 20-33), a feeling of frustration among young archaeologists that their profession was being controlled by hidebound amateurs, who had to be cleared out of the way for the good of the discipline. While Pamela Smith (1999, 11-30) has shown that Piggott's recollection of the course of events that took place in transforming the Prehistoric Society of East Anglia into the Prehistoric Society was faulty, there can be no question that there was a genuine feeling that the old order should give way to the new. The Cunningtons, with their decades of involvement in Wiltshire archaeology, and their stranglehold on the Devizes Museum, were certainly part of old-style archaeology, and must have seemed frustratingly entrenched. Piggott recorded his own irritation and contempt in a letter to Keiller in 1933:

[Ben Cunnington] goes round squeaking and bleating the most incredible archaeological heresies and becoming apoplectic at the mention of Stonehenge. You will doubtless be interested to know that neither he nor Mrs C. (who mercifully is <u>not</u> here) 'believe' in a Neolithic period at all. I suppose their suggested sequence would be Palaeolithic (grudgingly recognized)

All Cannings Cross (West Kennet phase) All Cannings Cross (Woodhenge phase) All Cannings Cross (All Cannings phase) and so on with Stonehenge somewhere in the Middle Ages (probably a little later than Salisbury Cathedral). (Alexander Keiller Museum ref. 88051524)

There was also the problem of class. It has been suggested that Stuart Piggott's dislike for Maud Cunnington stemmed in part from her having treated him as an employee, rather than as an archaeologist in his own right (Guido pers. comm.). While this was no doubt galling for Stuart Piggott, to Maud Cunnington there can have seemed little difference between W.E.V. Young - whom she and Keiller employed as a foreman - and Stuart Piggott, who was employed as Keiller's assistant. Both were paid helpers, therefore neither were gentlemen. She seems to have had a much easier relationship with those she considered social equals. Her letters to Keiller are polite, if not particularly friendly, and the exchange with Wheeler in Archaeologia Cambrensis shows a very different side to her personality (Cunnington 1922a, Wheeler 1923, Cunnington 1923a).

It is also possible that Maud Cunnington's sex has contributed to her subsequent low standing. British social attitudes denied women a public voice and the national archaeological societies were equally hidebound in their attitudes to women. It is clear that Maud felt this prejudice; she told Peggy Guido not to become an archaeologist because it was 'far too difficult' for a woman (pers. comm.). It may be that Maud's noted abruptness partly sprang from the difficulties she encountered within male-dominated archaeology as much as private grief.

Maud Cunnington's attitude to her perceived social inferiors, her old-fashioned style of archaeology, her emphasis on respectability, and perhaps even her sex, alienated the next generation of archaeologists and ensured that the very people who might have kept her name alive and respected were only too ready to be critical of her work and deplore her methods.

These factors have affected her subsequent reputation and this is most clearly shown in Pitts' comments on Maud Cunnington's work at the Sanctuary, stating that she dug it too quickly and:

If she had not gone to the trouble of writing this report, it could have been that we would know almost nothing about what she found, for she left no field records. On the other hand, if some other archaeologists of the time had excavated the site we would know a great deal more than we do. (2000, 46)

There are a number of faults in Pitts' statement, and it can be suggested that they all arise from the attitude of Keiller and his contemporaries. The idea that site records formed an archive which it was a duty to preserve for future generations is a relatively modern one. To someone of Maud Cunnington's generation the main criterion was to publish a full report as soon as possible. Nor is it known what happened to Maud's papers after she died, but it is clear from the report, with its detailed contextual information, that she kept records. To argue that other archaeologists would have kept better records is misguided: James Curle, excavating at Newstead (1911), Wilfred Hemp, at Bryn yr Hen Bobl (1936), Sir Lindsay Scott at Pant y Saer (1933), all kept minimal records but published quickly and, although this has led to problems with reinterpreting their sites, it was perfectly acceptable procedure at the time. It was the next generation of archaeologists, such as Wheeler and Keiller, who believed so strongly in record keeping. It could be argued that Pitts has been unduly influenced by Keiller's criticisms in castigating Maud Cunnington when she was simply excavating in a similar manner to others of her generation. Other archaeologists have recognised the complexity of the site and the quality of the work done: 'it stands as a testimony to Maud Cumington that the Sanctuary [excavations] can be re-interpreted with a reasonable degree of confidence 60 years after the

original excavation' (Pollard 1992, 214). When there is such a wide divergence of opinion about the value of Maud Cunnington's work, it is impossible to escape the suspicion that personal animosity from Keiller's time is still bearing undue influence.

CONCLUSION

It can be argued that Maud Cunnington's current low standing is as much due to the attitude of her successors as the actual quality of her work. This is not an attempt to argue that these archaeologists were wrong and that Maud Cunnington was in fact a sweet-natured and kindly woman. It is undeniable that she was as difficult, abrupt, and actively unpleasant, as she has often been portrayed. Nor is this paper an attempt to suggest that those who recorded her irritation and animosity towards her should instead have concentrated solely on her work rather than her personality. Archaeologists are not objective, and however much we like to pretend otherwise, personal reactions affect our interpretations of our contemporaries, just as much as they affect our interpretations of archaeology. However, only one side of Maud Cunnington's personality has been represented, and that negative attitude has been allowed to dominate our thinking. Had those writing memoirs of the Cunnington family and obituaries of Maud followed a less traditional approach we might have a more detailed knowledge of her life and thoughts. This information may now be irredeemably lost, but this paper proposes that had Maud Cunnington been well liked her limitations would have been more easily forgiven, and that now, with no personal involvement, we should assess her contribution to archaeology, instead of being swayed by unsympathetic readings of her character to dismiss her undeniable achievements. Maud Cunnington opened up Wiltshire archaeology. Whilst her writing about all periods of Wiltshire archaeology may now seem eclectic, her deliberate decision to specialise in non-funerary archaeology shows a premeditated research strategy rather than general antiquarian curiosity. Her work may be flawed but when we consider the times in which she was writing and the difficulties she faced, the thoroughness and detail of her work is unsurpassed.

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Notes

1. for WANHS:

rule x 'Candidates for admission as members, shall be proposed by two members at any of the general or committee meetings and the election shall be determined by ballot at the next committee or general meeting; three fourths of the members present, balloting shall elect.'

rule xi 'Ladies shall be eligible as members without ballot, being proposed by two members and approved by the majority of the meeting.'

- 2. The Society of Antiquaries of London received subsidies from the Government and free rental of Burlington House. Pailey Bailden advised the other council members that one or two 'carefully chosen' women 'worthy of the honour' should be elected to show the government that they were 'doing something'. This would also give them justification for rejecting unqualified women 'trying it on' (Evans 1956, 388).
- Although not spelt out in the All Cannings Cross volume, this belief seems to stem from her idea that burial practices were conservative: '...objects ceremonially deposited may be, and not uncommonly are, of archaic type' (1930a, 108)
- 4. That Maud Cunnington was mistaken in her dating of Woodhenge and Stonehenge was the first remark that both Stuart Piggott and Peggy Guido made to me when I mentioned her name.
- 5. It may also be that Maud Cunnington played down the beaker evidence in the final report. Stuart Piggott reported R. S. Newall as saying '..there's Beaker pottery there all the time and she's keeping it quiet' after a site visit (pers. comm.).
- Compare for example Newall's discussion of the date of Stonehenge (1929, 88) and her presentation of this discussion (Cunnington 1930a, 113).
- 7. From Ken Annable's copies of Keiller's letters.
- 8. Such a technique was, in fact, standard practice. In a note on the All Cannings Cross excavations in the Antiquaries Journal it states '...a large number of urns put together with exemplary patience and dexterity by Mrs Cunnington for the museum' (1923, 263; and Paul Robinson pers. comm.).

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Appendix 1: Main Excavations (in order of date of commencement with place of publication)

Manton Barrow	(1908, WANHM 35, 1-20)
Oliver's Camp	(1908, WANHM 35, 408-444)
Morgan's Hill	(1910, WANHM 36, 590-596)

Knap Hill	(1911, WANHM 37, 42-65)
All Cannings Cross	(1912, WANHM 37, 526-538,
	and 1923 Devizes)
Casterley Camp	(1913, WANHM 38, 53-105)
Lidbury Camp	(1917, WANHM 40, 12-36)
Market Lavington G2	(1926, WANHM 43, 396-7)
Figsbury Rings	(1925, WANHM 43, 267-284)
Woodhenge	(1929 Devizes)
The Sanctuary	(1931, WANHM 45, 300-335)
Yarnbury	(1932, Antiquity 6, 471-4: and
	1933, WANHM 46,
	198-218)

Appendix 2: The Archaeological Publications of Maud Cunnington

1899

'An old English glass linen smoother from Ramsbury, Wiltshire' *The Reliquary* 5, 125-6

1908

- 'Notes on the Opening of a Bronze Age Barrow at Manton near Marlborough' *The Reliquary* 13, 28-46
- 'Notes on the Opening of a Bronze Age Barrow at Manton near Marlborough' WANHM 35, 1-20

'Oliver's Camp, Devizes' WANHM 35, 408-444

1909

- 'Notes on a late Celtic Rubbish Heap near Oare' WANHM 36, 125-138
- 'The discovery of a chamber in the long barrow at Lanhill, near Chippenham' WANHM 36, 300-310
- 'Notes on barrows near Kings Play Down, Heddington' WANHM 36, 311-317

1910

- 'Notes on the Roman Antiquities in the Westbury collection at the museum, Devizes' WANHM 36, 464-74
- 'A Medieval earthwork near Morgan's Hill' WANHM 36, 590-598
- 'A Medieval Earthwork in Wiltshire' Man 7, 13

1911-1912

- (with E.H. Goddard) Catalogue of antiquities in the museum of the Wiltshire Archaeology and Natural History Society at Devizes, Part 2. Devizes: WANHS
- 'Notes on crescent shaped object and an inscribed cinerary urn' Archaeologia Cambrensis 66, 147-151
- 'Knap Hill Camp' WANHM 37, 42-65
- 'A late Celtic Inhabited site at All Canning Cross Farm' WANHM 37, 526-538
- 'Bronze Age Barrows on Arn Hill, Warminster' WANHM 37, 538-541
- 'The removal of a Barrow on the Downs near Upavon' WANHM 37, 603-605

'A Saxon Cemetery at 'The Fox' Purton' WANHM 37, 606-608 (with E.H. Goddard)

1913

- 'The re-erection of two fallen stones, and discovery of an interment with drinking cup, at Avebury.' WANHM 38, 1-11
- 'A Buried stone in the Kennet Avenue' WANHM 38, 12-14
- 'Casterley Camp excavations' WANHM 38, 53-105
- 'Interment near Old Shepherd's Shore' WANHM 38, 106
- [•]Coin of Alexander the Great found at Tilshead' *WANHM* 38, 106-7

1914

- 'List of the long barrows of Wiltshire' WANHM 38, 379-414
- 'Hut Circles at Old Shepherd's Shore WANHM 38, 632-3
- 'The age of the 'cylindrical notched glass beads' found in Wiltshire Barrows' WANHM 38, 643-4

1917

'Lidbury Camp. Being an account of the excavations carried out by Mr and Mrs B.H. Cunnington in 1914' WANHM 40, 12-36

1920

'Notes on Objects from an Inhabited site on the Worms Head Glamorgan' Archaeologia Cambrensis 75, 281-6

1922

- (with B.H. Cunnington) A short outline guide to the archaeological periods as illustrated by the exhibits in the museum, Devizes. Devizes: WANHS
- 'The dating of camps' Archaeologia Cambrensis 77, 390-391
- 'A village site of the Hallstatt Period in Wiltshire' Antiquaries Journal 2, 13-19
- 'Discovery of a Bronze Age cinerary urn near Marlborough' Antiquaries Journal 2, 378
- 'Pits in Battlesbury Camp' Antiquaries Journal 2, 378-379

1923

- The Early Iron Age Inhabited Site at All Cannings Cross Farm, Wiltshire. Devizes: George Simpson
- 'On the dating of camps' Archaeologia Cambrensis 78, 303-304

1923-1924

- 'Brooches from Cold Kitchen Hill' WANHM 42, 67-69
- 'Late Bronze Age gold bracelet from Clench Common' WANHM 42, 69-70
- 'Bronze Age Cinerary Urn found at Knowle, Little Bedwyn' WANHM 42, 245-6
- 'A spindle whorl with Cabalistic Signs' WANHM 42, 246-247

- 'Pits in Battlesbury Camp' WANHM 42, 368-373
- 'A new theory of Avebury' WANHM 42, 591-592
- 'The name 'Godsbury'' WANHM 42, 592-593
- 'Objects recently given to the Museum' WANHM 42, 599-601

1925

1926

Bronze arrow head from Wiltshire' Antiquaries Journal 6, 182

'Cross on incense-cup' Antiquaries Journal 6, 182-184

'Some Norman Castle Sites in Wiltshire' *Wiltshire Gazette* 4-03-26

1925-1927

- 'Prehistoric Timber Circles' Antiquity 1, 92-95
- The pottery from the long barrow at West Kennet, Wiltshire. Devizes: George Simpson
- 'Figsbury Rings. An account of the excavations in 1924' WANHM 43, 48-58
- 'List of Bronze Age Drinking Cups found in Wiltshire' WANHM 43, 267-84
- 'Notes on Recent Prehistoric Finds' WANHM 43, 395-400
- 'Two Bronze Age Beaker Burials at Netheravon' WANHM 43, 490-491

1929

Woodhenge. A description of the site as revealed by excavations carried out there by Mr and Mrs B.H. Cunnington 1926-7-8: also of 4 circles in an earthwork enclosure south of Woodhenge. Devizes: George Simpson

'Stonehenge' Antiquity 3, 223-226

'Fragment of Bronze Bracelet (?) of Hallstatt age from Cold Kitchen Hill' WANHM 44, 141-142

1930

'Stonehenge and the two date theory' Antiquaries Journal 10, 103-113

1931

- Avebury: a guide to the circles, the church, the manor house etc., Silbury Hill. Devizes
- 'Three brooches from Wiltshire' Antiquaries Journal 11, 160-161
- 'Niedermendig lava rock near Avebury' Antiquity 5, 233-235

1930-1932

- 'Presidential address to WANHS: The Iron Age in Wiltshire' Wiltshire Gazette 28/07/32
- 'Was there a second Belgic invasion (represented by beadrim pottery)?' Antiquaries Journal 12, 27-34
- 'Yarnbury Castle' Antiquity 6, 471-474

^{&#}x27;Prehistoric gold in Wiltshire' Antiquaries Journal 5, 61-70

'Unrecorded long barrow at Imber' WANHM 45, 83

- 'Saxon burials at Chisenbury' WANHM 45, 84
- 'Romano-British Wiltshire. Being a list of sites occupied during the Roman period with the addition of some pre-Roman villages' WANHM 45, 166-216
- 'The 'Sanctuary' on Overton Hill, near Avebury. Being an account of the excavations carried out by Mr and Mrs B.H. Cunnington in 1930' WANHM 45, 300-325
- 'Graves found at Westbury' WANHM 45, 483

'Romano-British burial at Easterton' WANHM 45, 483

'Skeletons found at Upavon Aerodrome' WANHM 45, 484

'Skeleton found on Boreham Down' WANHM 45, 484

- 'Report on charcoals from 'The Sanctuary' on Overton Hill' WANHM 45, 484-485
- 'Romano-British pot and human remains found near Devizes' WANHM 45, 485

'Skeleton found at Amesbury' WANHM 45, 485

1933

Introduction to the archaeology of Wiltshire from the earliest times to the pagan Saxons, with chapters on Stonehenge, Woodhenge, Avebury, Silbury Hill, barrows, earthworks, etc. Devizes: George Simpson

'Mineral coal in Roman Britain' Antiquity 7, 89-90

1933-1934

Introduction to the archaeology of Wiltshire from the earliest times to the pagan Saxons, with chapters on Stonehenge, Woodhenge, Avebury, Silbury Hill, barrows, earthworks, etc. 2nd edn. (revised and enlarged) Devizes: George Simpson

- (with E.H. Goddard) Catalogue of antiquities in the museum of the Wiltshire Archaeology and Natural History Society at Devizes. Part 2, 2nd edn. Devizes: WANHS
- 'The demolition of Chisenbury Trundle' WANHM 46, 1-3
- 'Chisbury Camp' WANHM 46, 4-7

'Wiltshire in pagan Saxon times' WANHM 46, 147-175

- 'Excavations in Yarnbury Castle Camp 1932' WANHM 46, 198-213
- 'Sarsen stones at Kingston Deverill' WANHM 46, 261-262
- 'Evidence of climate derived from snail shells and its bearing on the date of Stonehenge' WANHM 46, 350-355

1935-1937

'A Saxon burial of the pagan period at Woodbridge, North

Newnton' WANHM 47, 265-267

- 'Note on a burial at Amesbury' WANHM 47, 267
- 'Blue stone from Boles Barrow' WANHM 47, 267
- 'Bronze dagger from Aston Keynes' WANHM 47 281
- 'The straw plaiting industry in Wiltshire' WANHM 47 281; 282; 538
- Wall paintings formerly in Highworth Church' WANHM 47, 420-421
- 'Polished axe of greenish-brown stone' *WANHM* 47, 537-538
- 'The Roman villa at Netheravon' WANHM 47, 538
- 'Horns of Urus said to be found in a barrow at Cherhill' WANHM 47, 583-586

1938

Introduction to the archaeology of Wiltshire from the earliest times to the pagan Saxons, with chapters on Stonehenge, Woodhenge, Avebury, Silbury Hill, barrows, earthworks, etc. 3rd edn. Devizes: George Simpson

1938-1939

- 'The Walker bequest' [Objects from Cold Kitchen Hill, Battlesbury Camp, Upton Lovel etc] WANHM 48, 185-90
- 'A stone coffin found at Bradford-on-Avon' WANHM 48, 415-418
- 'Skeletons found near Warminster' WANHM 48, 468-469
- 'Saxon burial at Netheravon' WANHM 48, 469-470

1942

- 'Roman brick stamped with maker's name from Burderope Race Course Field' WANHM 49, 117
- 'An urn from Wexcombe Down' WANHM 49, 164-5
- 'A fragment of Romano-British pottery of rare type found at Heddington' WANHM 49, 219-220
- 'Saxon burials at Foxhill, Warnborough 1941' WANHM 49, 542-543

1944

Wiltshire Exhibits in Exeter museum' WANHM 50, 289

1949

Introduction to the archaeology of Wiltshire from the earliest times to the pagan Saxons, with chapters on Stonehenge, Woodhenge, Avebury, Silbury Hill, barrows, earthworks, etc. 4th edn. Devizes: George Simpson

Hedgehogs in Wiltshire, a Survey, 1999-2000 by Humphrey Kay

A decline in the number of hedgehogs in the county is indicated by 142 replies received from naturalists, gardeners and garden clubs. The results are detailed and suggest that although deaths from road traffic accidents have dropped, deaths from predation by badgers have increased. Details of seven documented cases of hedgehog/ badger interactions are given.

There is good evidence that the population of hedgehogs in England has declined and may be declining further, (Tapper,1992, Morris,1994). Morris gives a number of possible causes for the decline but one which calls for investigation is the increase of badgers (Wilson et al, 1997) which are known to drive away and/or predate on hedgehogs to the point of elimination from an area (Doncaster, 1992) In an effort to discover the situation in Wiltshire, a survey was made in 1999 and 2000, with additional recollections requested from observers of previous years.

The survey, which ran from March 1999 to December 2000, has three sources of data.

1. A questionnaire sent to known observant naturalists, wardens of nature reserves, etc..

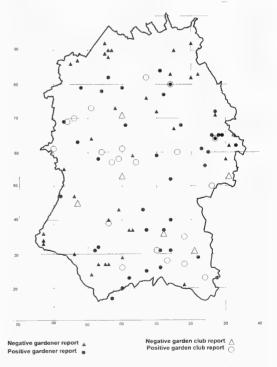
2. A similar request to gardening clubs and societies throughout the county.

3. Requests to keen individual gardeners, selected so as to represent as wide an area as possible within the county.

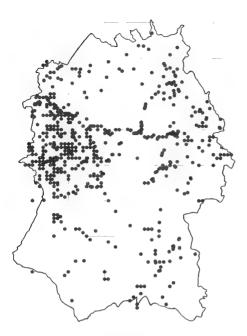
The information sought was of hedgehogs killed on the roads, live hedgehogs whether regularly or occasionally seen (and field signs), past history of hedgehogs in or around gardens; presence and history of badgers in the area and any evidence of direct badger-hedgehog interaction.

Of the replies received, 35 were from naturalists, 81 from individual gardeners and 26 from garden clubs. These last contained various amounts of detail but 11 had conducted surveys or votes at a meeting – up to 70 at Devizes – and represented in all over 300 members.

The location of gardeners and garden clubs is shown in Map 1 indicating the geographical



Map 1. Hedgehog records from gardeners and garden clubs, 1999-2000



Map 2. Distribution of hedgehog deaths on all roads in Wiltshire, 1976-85

coverage of the survey. The naturalists made many of their observations in the field but the location of the residences of seven has been included in the map to indicate the extent covered by the survey.

It will be seen that the geographical coverage is reasonably complete but there are some inevitable gaps. One of these is the military training area of Salisbury Plain but naturalists who know this area well say that it has never had many hedgehogs in recent decades except in the Avon valley (and see Browne's data in Dillon 1997). Other chalk downland areas, Cranborne Chase and Marlborough Downs, are also relatively underobserved except where there are villages along the valleys and fringing escarpments. The results have been compared so far as is possible with the survey of Marion Browne occupying the years 1976-85 and published by WANHS 1987.

Two areas were subject to a more detailed survey, although owing to restrictions of access due to foot-and-mouth disease in 2001, neither was as rigorous as intended. These were:

1. The villages of Donhead St Andrew and Donhead St. Mary that have apparently been devoid of hedgehogs for many decades.

2 It is established that hedgehogs are absent from the much-studied Wytham Wood near Oxford,



Map 3. Total hedgehog road casualties, 1999-2000

but they should naturally flourish in woodlands and a study of Savernake Forest, the largest woodland in Wiltshire, seemed appropriate.

ROAD TRAFFIC ACCIDENTS (RTAS)

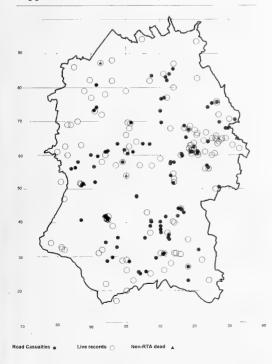
Maps 2 and 3 indicate the locations of all RTAs in both the 1976-85 survey and the 1999-2000 survey. In so far as these observations are, in both surveys, derived from random sightings by many observers without any consistent pattern of car-journeys, they are not a very reliable guide to the county-wide frequency. They are underestimates in that hedgehog carcases may disappear within 24 hours of first observation but conversely records were checked for duplication as a carcase can remain for some time. The longest record was of a recognisably bristly carapace in the middle of the road outside Pewsey church from May to August 1999.

It is difficult to draw firm conclusions from comparing these surveys. Both the number and location of observers differ and the factor of time spent travelling on the roads is unknown while the volume of traffic has risen to any unknown degree. Marion Browne received her reports from over 400 observers in the ten-year period of her survey so the apparent decline from 1107 RTAs in ten years to 114 in the two years of the recent survey may or may not be significant. There is a widespread subjective impression that there are now fewer hedgehog corpses on the roads so the difference, approximately a halving, may be near to reality.

There are almost certainly some real local differences. One of these concerns the A4 from Chippenham to Marlborough and the villages of the Kennet valley west of Marlborough. There is a conspicuous blank in the present survey compared with the previous one and the likelihood that this is real is supported by the detailed observations of Dr. Jack Oliver at Lockeridge (see Conflict Zones, 4)

Similarly there is an apparent and probably real difference at Warminster (ca.ST8845) and in adjacent parts of the Wylye valley where again the existence of a badger-hedgehog conflict zone is confirmed by Jane Harington at Upton Lovell (see Conflict Zones, 3) and by the evidence of the Warminster Gardening Club - 'no hedgehogs seen by anyone for 2-3 years'.

The conspicuous difference around Chippenham and to the west, on the other hand, is



Map 4 Total hedgehog records 1999-2000

probably in part an artefact since this was Marion Browne's most closely observed area and the absence of RTAs is in contrast to positive reports by the Garden Clubs at Chippenham, Corsham and Box, although at Chippenham where hedgehogs were regularly observed five years ago, they are now only occasional.

One fact which emerges from the present survey is that with very few exceptions all the road causalities are within villages, hamlets or the outskirts of towns. The proximity of villages in Wiltshire is such that the stretches of road more than one km. away from residences are limited, but where there are such gaps on the A-roads 4,303,344,345,360, 361 and 419, etc., there is a conspicuous scarcity of records. The absence of carcases on the M4, noted also by Marion Browne, is not surprising; one would expect hedgehogs to have learned to avoid a motorway and any casualty will quickly get flattened beyond recognition at 70 m.p.h.

One exception appeared to be RTAs on a fast, straight section of A360 (ca.SU100390), noted in both 1999 and 2000. This was investigated and it was found that the nearby hamlet of Druid's Lodge (SU099390) and the farm buildings at Asserton (SU085395) had gardens where hedgehogs were common and badgers only occasional, the nearest main sett being 3 km. away at SU 074378.

There has been a decline in RTA numbers from 61 in 1999 to 53 in 2000 which is too small to be statistically significant, but it could reflect a real decline as there were slightly more observers in 2000 than in 1999 and several of them have noted a further scarcity of RTAs in 2001.

LIVE SIGHTINGS

Map 4 shows the position of all hedgehogs alive or dead for the years 1999 and 2000. In a very few instances the report depends on the presence of recognisable droppings but in the majority the hedgehogs were seen . These observations were mostly in gardens where many keen gardeners are fully aware of local hedgehogs ; negative records may be due to inaccessibility (e.g. walled gardens), the presence of dogs, lack of observation, or true absence from the locality. Where garden clubs polled their members, the ratio of negatives and positives, both regular and occasional, reflects these variables as well as actual geographical differences. In six clubs no members had seen hedgehogs within the last two years but at least one of these must be counted a false negative (Woodford, SU1236) since 3RTAs were noted nearby and in the case of Calne (SU 0071) a RTA to the east and sightings south of the town must qualify the classification. Furthermore at Lavington the negative experience of the Garden Club must be set against the well-documented account of a hedgehog being killed on the outskirts of Lavington in 2000 (see Conflict Zones, 1), a final elimination from this village perhaps.

The highest aggregate for a club was at Alderbury where frequency was reported as being regular (6), occasional (12) and absent (5), (this in a village visited by badgers). Many clubs and gardeners reported decreasing numbers of hedgehogs, and some were able to put an approximate time in years since they were last seen as follows: 25,20,>19,19,15,>14,>10,10,9,8,7, >5,5,?5,4-5,4-5,4-5,4,4,3-4,2-3,>2,2,2,and 'few'. In three places — West Malmesbury (see Conflict Zones, 2) Crudwell and Ludwell — an absence of ten years or more was greeted with surprise in 2000 by the reappearance of a single hedgehog, but reappearances or increases in numbers have not otherwise been noted.

THE DONHEADS

The two parishes of Donhead St Andrew and Donhead St. Mary lie at the upper end of the Nadder valley where the topography is one of steep-sided valleys with abundant spring-fed streams carving a mosaic of woods, pastures and gardens with very little arable land. The greensand in this area contains seams of greensand rock underneath which badgers have dug many stable setts from which to forage in an ideal habitat. Both gardeners and farmers are loud in their complaints about the superabundance of badgers, and evidence of their presence is widespread. They must have a very high population density; the close concentration of setts is well shown in Beatrice Gillam's survey of 1966 (Gillam, 1967).

I have questioned several farmers and over thirty residents about hedgehogs with a universally negative response. Many have lived there for several decades and the 'oldest' inhabitant stated with conviction that although she was familiar with hedgehogs elsewhere she had never seen one in the Donheads in fifty-three years. It should be noted that this is one of the areas without hedgehog records in Marion Browne's survey. One cannot, of course, argue from *post hoc* to *propter hoc*, but there is no reason, other than badger competition/ predation, e.g. use of toxic chemicals, etc., why hedgehogs should be absent from a habitat so well suited to their needs.

SAVERNAKE FOREST

Although hedgehogs do not favour close-canopied woodland as a habitat, they are found along woodland edges and in mixed areas of pasture and woodland. They have been shown to be absent from Wytham Wood near Oxford on account of competition and predation by badgers. In Wiltshire Savernake Forest, previously an example of wood pasture with hunting for deer as a primary purpose, is now a mosaic of mixed forestry – roughly equal areas of conifer and broadleaf – with tracts of pasture and some arable interspersed. Its soil varies but much of it is a clay cap over chalk and, while there are a few badger setts in the central block of the forest, badgers have mostly preferred the chalk escarpments along its borders.

Enquiry was directed to the scattered inhabitants of the forest and there have been RTAs at Durley. In summary it appears that there is a good population of hedgehogs throughout the southern half of the forest, roughly from Durley and Bloxham to Great Bedwyn and Chisbury with plenty around St. Katherine's, but north of this there has been a decline . They used to be seen regularly at Timbridge, Braydon Hook, Forest Hill and Cadley but have become scarce or absent there in the last two years. It is curious that there have been no RTAs on the Savernake stretch of the A4, either in this survey or that of 1976-85.

Most of the forest is accessible to badgers from setts in the chalk north and south and from some around SU2467 and SU2265 but it has not been possible, from lack of access, to plot badger setts north of the A4. No conclusions on the decrease of hedgehogs south of the A4 can be drawn but future studies may reveal any possible trend.

CONFLICT ZONES

In seven areas, designated Conflict Zones, there has been direct evidence of interaction between badgers and hedgehogs. These are listed.

HEDGEHOGS IN WILTSHIRE, A SURVEY, 1999-2000

1. Lavington SU0254 (John Oram)

A resident for over 30 years, an experienced gardener and naturalist, had noted many hedgehogs in his garden and adjacent to it. But these had declined in the last ten years or so. In April 2000 he heard a loud noise in the garden and found a badger attacking a large hedgehog which it had been able to unroll. The badger was chased away but the hedgehog was mortally wounded.. No further hedgehogs have since been seen. There have been increasing numbers of badgers in recent years coming down from setts in the chalk escarpment to the gardens of Easterton and Lavington. Note that the Lavington Garden Club members have seen no hedgehogs in the last two years.

2. Malmesbury ST 927873 (David and Jean Wall) Hedgehogs are found in the gardens in Malmesbury but they had not been noted in the Walls' garden on the west edge of the town for eight years. A large one was seen on July 8th 2000 and one week later a hedgehog skin was found there. A second skin was found in the same garden on Sept 2nd. There is a badger sett within 200 yards.

3. Upton Lovell ca. ST9440 (Jane Harington)

At least twenty live sightings in Upton Lovell and at Knook East Farm from April to August 2000. Dead hedgehogs: one killed by road verge cutter, two RTAs, one found dead in a garden and four found eaten leaving residual carapace, (ST946409,946408,937417 and 945409) Main badger sett at ST 943415 with evidence of badgers entering village and farm.

4. Lockeridge and around (Jack Oliver)

SU149676: hedgehogs very common 1969-81. In 1981,82,83 and 84, numerous hedghog pelts (upper jaw and spines) found , all the rest scooped out by badgers. Since 1984 no hedgehogs seen. The last mother hedgehog was seen moving her young from the south to the north of our house, away from the badger sett.

SU130679 (W.Overton): hedgehogs still present in small fenced gardens

SU146686,150710 and 143673: no hedgehogs in recent years; badger setts numerous.

5. New Mill ca. SU1861 (Humphrey Kay and Rachel Edwards)

A hamlet between the railway and the canal has had hedgehogs regularly for many years. In 1999 a carapace of a young hedgehog was found in a field SE of the hamlet where much fresh horse dung had been disturbed, presumably by badgers., and two carapaces were found in a rough part of a garden to the SW of the hamlet. (Two young hedgehog carapaces found by the road had been partly consumed but could have been road casualties. The main badger sett is at SU191617 with outliers at 186620 and other main setts further west close to the canal. There is no positive evidence of an increase in badger numbers but dung pits at SU185620 and 185621 were new features in 1999 and 2000. Despite this evidence of predation hedgehogs are still present in the hamlet in 2001.

5. Bradford-on-Avon ST818608 (Gwyneth Yerrington)

We have lived in Bradford for almost 35 years and hedgehogs have been very common with many visits and sometimes hibernations beneath a hedge. Over the last 12 years or so visits have become fewer and it must be at least eight years since I found a prickly skin sitting on the lawn and the same thing 14 months before that. No sign of any limbs, head or other bits of body. I was uncertain whether the culprit was a badger or fox but inclined to the former as a neighbour was awakened at 5 a.m. one summer's day by the screams of a hedgehog which was being attacked by a badger.

Badgers have become more and more common visitors to our gardens locally; there are setts nearby and badgers have been seen running along roads close to the town centre.

Similar evidence from Joan Ward living nearby

7. Brinkworth ca. SU 0184 (Sally Russell)

Ten years ago many hedgehogs but they disappeared 4-5 years ago at which time some carapaces were found between Brinkworth and a badger sett by the railway line. No hedgehogs at all in the last two years.

DISCUSSION

There seems little doubt that there has been a significant decline in the number of hedgehogs in Wiltshire in the last twenty years and, to judge by the frequency of more short-term comments, the last two years particularly have seen many local declines and extinctions. Hedgehogs roam widely wherever there are fields with hedges, woodland edges and, above all, gardens. Gardens provide a

varied supply of food and, despite the attention of dogs and cats which are no more than a nuisance, they give some protection from the more aggressive predator, the badger. In Wiltshire, as elsewhere, they appear to be the prime habitat for the hedgehog at present.

Morris has discussed some possible causes of the decline of hedgehogs, emphasising the changes in farming practices – larger fields with fewer hedges, the use of pesticides which both remove the natural sources of the hedgehog's food and may indirectly affect their health. The latter may also be a factor in garden mortality along with drowning in ponds, entanglement in netting, incineration in bonfires, etc. The mortality on the roads, he has suggested, has probably accounted for 50,000 to 100,000 per year etc., and this, to judge from the Wiltshire surveys, may, itself, be a declining figure.

The badger has been given, since the Countryside Acts of the early eighties, almost complete protection with the result that the numbers have increased greatly. The two surveys conducted by Stephen Harris in the mid-eighties and mid-nineties (see Wilson et al.1997) showed an overall countrywide increase of 77%, and, while in Wiltshire it may be somewhat less - the number of main setts in the 54 sq.km. surveyed was up from 24 to 29 (Kay,1998) - local increases were probably up to the national average. One can hardly doubt that the larger number of badgers is one factor in the decline of the hedgehog but how big a factor is difficult to determine. Locally the evidence seems very strong, whether one is considering longterm effects as at, say, the Donheads, or more recent trends as around Lockeridge or Bradford-on-Avon. To judge by the responses received in this survey, the last two to four years have seen a particularly steep downward trend and it will be important to follow up these results within the next five years.

One disturbing trend that should be noted is that as a result of both roadway casualties and badger predation the distribution of hedgehogs is being fragmented, and is now centred largely in villages and urban outskirts, thus being subject to the well-known hazards of survival for small, isolated populations. The future of the hedgehog needs careful study.

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Agriculture in Wiltshire in the First World War by Ivor Slocombe

The challenges which faced agriculture in Wiltshire during the First World War are examined together with the response, in particular, to the demand for increased production especially of corn crops. Wiltshire was a pioneer in the training of women for farm work while the introduction of mechanisation and the changes in the pattern of land ownership had a lasting impact. Above all, the perception of agriculture and its importance to the economy and society was enhanced by the exposure of the danger of over-reliance on imported food.

INTRODUCTION

Food production and the food supply were major issues throughout the First World War. At first it was confidently expected that home agriculture would step up production and imports would be safeguarded through the domination of the seas by the British navy. These expectations, however, were upset from 1916-17 onwards by the success of the German U-boat campaign which very seriously reduced the import of food, especially wheat from the New World. Indeed there was a very real risk in 1917-18 that the country would run out of staple foods.

The first problem to arise, and indeed one which farmers complained loudly about throughout the war, was the lack of manpower. The efforts to solve this involved, from time to time, the campaign to get exemption from conscription for agricultural workers, the early release of boys from school, the training and use of women and the secondment of soldiers to help on the land. Later, as imports of wheat decreased substantially, farmers were required, by compulsion if necessary, to plough up permanent pasture and significantly increase the acreage of arable crops. Although this was often hotly opposed by farmers, the reality was that much of this land had only been put to pasture in the 1880s when the cheap imports of grain had made much home-grown wheat unviable.

Wiltshire was affected by all these issues. In addition, the substantial army presence in the county brought its own problems. The large areas taken over for military camps and training decreased the amount of land available for agriculture; the troops based in those camps made large demands on local produce; and the army's need for much civilian labour, especially in building the camps, competed with agriculture for the diminished work force. Finally, the war had a lasting impact on land ownership in the county as many of the large estates were sold and dispersed for both economic and family reasons.

WILTSHIRE AGRICULTURE ON THE OUTBREAK OF WAR

At the outbreak of the First World War, Wiltshire's agriculture displayed many contrasts. Within the county, there were great differences from area to area but, taking the county as a whole, these differences balanced each other out and the county appeared to be almost exactly average or typical of the country.

¹¹ Belcombe Place, Bradford on Avon, BA15 1NA

Wiltshire still followed its traditional pattern of 'chalk and cheese' with large arable farms in the south and east and dairving or mixed farms in the west and north. A return by Petty Sessional Divisions in 1914 showed Marlborough (54%) and Salisbury with Amesbury (52.7%) as the areas with the largest proportion of arable while Trowbridge (5.1%) and Melksham (5.7%) had the least.¹ Mechanisation had been slow. Some steam ploughing took place, mainly through a few large contractors, while milking machines, although not unknown, were very rare. Horses still provided the main source of power and in 1914 there were 16,501 horses used for agricultural purposes in the county. A further 9,500, mainly young and breeding stock, also existed on farms.²

The contrasts may be illustrated by two fairly typical farms. At the Common, Broughton Gifford a dairy farm consisted of 150 acres of which 50 acres were arable. It had 30 milking cows, 20 young stock, 80 pigs and 90 sheep. Before the war it employed four men and a boy. Over to the east of the county at Bulford, a large farmer had 4,000 acres of which 1,500 acres were arable.³

The county had not been immune from the major trends in the 1880s when cheap imports of grain had resulted in much arable land being put to permanent pasture. In 1872 there were 425,777 acres of arable land in the county but this had been reduced to 258,669 acres by 1914.4 Of the arable crops, wheat accounted for about 20% (52,061 acres) followed by oats at 18% (45,628 acres) and barley 10% (25,952 acres). Other major crops were turnips, swedes and mangolds (40,170 acres) and clover, sainfoin and grasses under rotation (52,161 acres). A variety of other crops included peas, beans, and potatoes (19,137 acres). Vetches or tares were also an important crop (12,348 acres), and 11,212 acres were bare fallow. The livestock consisted of 379,133 sheep, 130,412 cattle and 56,689 pigs.5

Wiltshire in 1914 had 717,819 acres under crops or grass which represented 2.9% of the total for England. If all the major aspects of agriculture, whether it is the proportion of arable to permanent grass, amount of wheat, number of sheep, cattle or pigs are examined, Wiltshire's share is in each case between 2.5% and 3% of the total for the country as a whole. Even production was similarly average with the yield per acre over the period 1904-13 being, for wheat, 32 bushels per acre (compared with 31.5 for England as a whole) and, for barley, 31.9 bushels (compared with 33.1 for England). Hay was similar with 1.12 tons per acre in Wiltshire compared with 1.16 for England.6

The pattern of agricultural holdings showed similar characteristics. Of the 6,764 holdings in Wiltshire in 1914, some 61% (4153) were of 50 acres or less compared with 66% for England. Holdings of between 50 and 300 acres accounted for 29% (1959) compared with 29.7% in England. The only significant difference lay in the number of large holdings of over 300 acres when Wiltshire had 9.6% (652) compared with 3.8% in the rest of England. Finally, 12% of the Wiltshire holdings were owner-occupied compared with 11.6% for the whole country. The Wiltshire owner-occupied holdings covered 12% (86,120 acres) of the total acreage under cultivation in the county and this was almost exactly average for the country $(11\%).^{7}$

MANPOWER

It is difficult to calculate the total number of men employed in agriculture in 1914 or the number who volunteered during the early part of the war before conscription was introduced in 1916. The best estimate suggests that, nationally, there were over a million persons working on farms of whom 250,000 were full-time farmers and 700,000 were full-time hired men. It has also been estimated that the supply of agricultural labour fell by 7% in 1915 and by 11% in 1916. By the end of 1916 labour was deficient by about 10% compared with the pre-war level.8 There is no reason to believe that this trend was anything different in Wiltshire. Certainly there is much anecdotal evidence of volunteers. One example is particularly poignant. Mr. Bridgeman, who farmed 4,000 acres at Collingbourne Ducis, had two sons who both wanted to volunteer but one was needed to help run the farm. The sons tossed with the winner having the 'privilege' of joining the army. He was killed in action within a vear.9

The shortage of labour was a constant and dominating theme in Wiltshire throughout the war. As early as November 1915 the Swindon and District N.F.U. complained that the vigorous activity of the army recruiting agencies was having a detrimental effect on agricultural labour. They wanted the government to issue specific instructions to exempt special classes of farmers and their workers and that they should be issued with 'exempt armbands' to show they were in important work. If this did not happen, then they considered the amount of arable land, in particular, would decrease.¹⁰

When conscription was introduced in January 1916 the government did to a certain extent recognise the importance of agriculture. The long list of 'certified occupations' included a number of agricultural trades: farmers solely occupied in the superintendence over or personal labour on their holdings, bailiffs and foremen, stockmen, carters, ploughmen, shepherds, thatchers and market gardeners. But in some of these categories exemption was not given to single men under 25 or 30. This did not entirely preclude the technically exempt men from being called up but the Recruiting Officer would need to prove to the local Military Tribunal that a particular farm had more men than absolutely necessary. In February 1917, in order to achieve some degree of consistency in interpretation of what was necessary, the government issued a scale of agricultural manpower. One skilled ablebodied man was deemed necessary for the following:

- each team of horses required to cultivate the land
- every 20 cows in milk when the assistance of women or boys was available
- every 50 head of cattle of stall or yard stock when auxiliary feeding is resorted to and the assistance of women or boys is available
- every 200 sheep exclusive of lambs grazed on enclosed land
- every 800 sheep running on mountain or hill pasturage.¹¹

The Wiltshire tribunals also considered evidence on the number of cows it was reasonable to expect a man to milk. Mr. Giles of Whistley Farm, Potterne told the tribunal that for one man to milk 15 cows was out of the question, 12 would be the outside number and ten would be quite enough. The figure of 12 per man seems to have become accepted as a local yardstick.¹²

Despite this degree of protection, the military authorities did attempt to call up agricultural workers and their employers frequently appealed to the tribunals. In general the tribunals seem to have recognised the importance of local agriculture and were sympathetic to the farming appeals. In the Calne Rural District Council area, where detailed statistics are available, 317 men, almost all from agricultural occupations, applied for exemption. Because of many temporary exemptions followed by further appeals, they appeared in 683 cases. The tribunal gave permanent exemption on 152 occasions and temporary exemption on 404 others.¹³

A contentious and sometimes acrimonious issue was the position of farmers' sons. A series of letters in the local press accused farmers of making special arrangements to protect their sons. This accusation was even reported in *The Times* in June 1918:

From the neighbouring county of Wiltshire ... many farmers have been allowed to retain an unfair proportion of their sons, and responsible men, even among the farming class, comment on the number of young farmers who apparently fail to take a serious view of the claims of the country.¹⁴

It is difficult to decide whether this was justified. There are many examples, similar to the Bridgeman case quoted above, of at least one of the sons joining up leaving another to help run the farm. But there are other examples of farmers taking deliberate action to secure exemption. A common way of doing this was for a farmer to lease another farm or separate part of his own farm and put his son or sons in charge of it. They could then claim exemption as occupiers of land. The most notorious case of this concerned the Godwin family of Crudwell who managed to get five of their six sons 'starred' as being in reserved occupations. The local tribunal which certainly had strong agricultural representation within its membership gave them short shrift: "We are going to unstar all the men. We do so because we think it really a scandal that a Wiltshire farmer should have six sons doing nothing for the Army and we think it our duty to this country that this should be done."15 At another tribunal a farm worker, Alfred Fishlock, applied for exemption but surprisingly received no support from his employer, Mr. Notton of Grafton. Fishlock commented: "I suppose he is looking after his own son instead of looking after me."16

Farmers attempted to compensate for the lack of male workers in a number of ways. There was particularly strong pressure from the agricultural organisations to obtain the early release of boys from school. The Local Education Authority allowed children to leave school and go into a job at 12 if they passed the 'labour examination'. They could, alternatively, leave at 13 to go to a job in agriculture without passing the examination. Farmers demanded that all boys should be allowed to leave as of right at 12 (or even at 11) without any constraints. This was strongly supported by Mr. Peto, one of the county's M.P.s, and the local press, especially the *Wiltshire Times*, which always favoured the agricultural interest. The local debate on this matter rumbled on throughout 1915 and continued even until 1917. At one stage the Bishop of Salisbury ventured an opinion. He was opposed to boys working in agriculture unless the labour market was totally exhausted. Then an adequate wage should be offered and there should be proper supervision, physical and moral, of the children.

The Education Committee was not unsympathetic to the farmers. They would not agree a blanket provision for all boys to leave at 12 but were prepared to consider individual applications. In March 1916 this scheme was extended to girls who were allowed to be absent from school to enable their mothers to undertake agricultural work. Altogether 1,155 boys and 76 girls were released in Wiltshire during the course of the war.

The part played by boys in agriculture at this period was highlighted in a report by Mr. Pullinger, the Director of Education, in August 1915. He showed that very many boys in Wiltshire went into agriculture when they left school but when they reached adulthood there was no job for them and there was a shortage of accommodation. Many then left agriculture for other jobs often in the towns. He concluded that of the yearly output of about 1,200 boys from rural schools in Wiltshire about 600 started agricultural work but only half of them stayed in agriculture permanently. He used these statistics to back his case that all children needed a good education despite the view of the farmers who argued that farm labourers required only a minimum of educational achievement.17

After boys, the second important element was the attempt to bring more women into agricultural work. Before the First World War only a relatively few women were employed in agriculture in Wiltshire. It was estimated that 1027 women were employed, many part-time, on 590 farms.¹⁸ In particular it seems that, although women worked in the dairy, there was no tradition in Wiltshire of women milking. It was in this area of agricultural work that a particular shortage of labour occurred as the war progressed.

Wiltshire was a pioneer in recruiting women into agriculture and its activities were one of the factors which led eventually to the establishment of the Women's Land Army. In January 1916 the county's War Agricultural Committee formed a Ladies Sub-Committee under the chairmanship of Lady Pembroke with Edith Olivier as secretary for the south of the county and Miss Warrender in the north. The first action was to create a county register of village women who were willing to work on farms. A voluntary correspondent was to be found in each village to do a local canvass and report. By July 1916 they reported that they had 3,154 women on the register of whom 2,656 were actually employed on 1,027 farms. This was double the number at the beginning of the war. A further report in August 1917 showed 2,590 employed - 863 full-time and 1727 part-time.¹⁹

The main problem was the shortage of trained milkers. To help solve this, it was decided to establish a residential training school. In March 1916 Arthur Stratton had offered the use, rent free, of Shaw Farmhouse at Manningford near Marlborough. With a grant from the Ministry of Agriculture, this school was opened in May 1916. This was closely followed by a second school at Woodford in a furnished cottage lent by Louis Grenville and with facilities for teaching on his farm. They hoped to turn out 10 trained girls every three to four weeks.

By the end of the war further schools had been opened at Longford (Lady Radnor), Wilton (Lady Pembroke), Patney and Berwick St. Leonard (Berwick House lent by Hugh Morrison). This activity seems to have been a mixed success. The total numbers were never large. The Manningford school, for example, had by September 1917 trained 38 girls; 26 of these were still on farms, 4 were waiting for employment, 2 were doing other National Service work, 4 had been discharged on health grounds, 1 had to live at home and 1 was unsatisfactory. When trained, the girls had to be 'placed' on farms and to achieve this it was necessary to overcome the prejudices of many farmers. Edith Olivier was very actively engaged in running the schools and in meeting the farmers. She recalled one meeting where her intention was 'to disarm suspicion and make 'em say what they thought women could do'. She heard them whisper 'scare-crow' to each other. But she ends by saying that 'they were really friendly and full of sensible suggestions.'20

A more positive attitude came from Mr. A. J. Legg whose whole family had been long employed by Arthur Stratton to run his dairy farms. He much preferred women milkers: 'You can trust them better . . . besides cows prefer women. They are more tender in the touch, they are less prone to apply the milking stool to an improper purpose and are more affectionately disposed towards the cows.' Perhaps surprisingly, he said he preferred town girls to country girls: 'They are less timid of the cattle. Strange as it may seem, country children who are

always being frightened by being told that "cows will have them" are more nervous than the girls from the towns.²¹

Undoubtedly Edith Olivier and other members of the committee looked to recruit 'the better sort of girls' from the towns. Of the first group of six girls at Manningford, three came from London, two from Bournemouth and one from Essex. Of the London girls, one had been employed making bandoliers for soldiers and another had been destined for the stage. All these girls were under 20 and, because of their youth and attitudes at the time, it was expected that those running the scheme would keep close pastoral care of the girls even when they had gone off to farms. Edith Olivier, in her diaries, recalls the countless problems she had to deal with. She was dismayed when a new batch of recruits arrived and did not match her expectations: 'the new ones are awful, not "educated" at all but real dirty slum girls or so we thought'. On another occasion she talks of 'A funny lot of girls. One awful fat married woman exactly like Falstaff and the Spackmans say she is very coarse and drinks and smokes and takes God's name in vain'. On a number of occasions she had to retrieve girls from their work placements because they had proved unsatisfactory or, in a case at Edington, in response to a letter from the farmer's wife saying that her husband had formed a liaison with one of the milkers.22

But despite these problems, there were many success stories. In November 1917 the Swindon Advertiser carried a long article about a Bristol girl from Redland High School who had been trained at Longford Castle. She then got a job on a large farm in north Wiltshire and, despite the long hours and the wages which were 'by no means overwhelming', she enjoyed the open-air life. She had done most jobs on the farm - manure spreading, sack mending, milking, threshing, chaff cutting, haymaking, harvesting, ploughing, harrowing, planting, root cutting, hoeing and feeding animals. She described a typical October day: up at 6.30, breakfast and cycle to the farm before 8, special job of feeding the calves, then get a team of horses ready, planting wheat and beans and ploughing them in, finish in the fields by 3.30 to 4, back to farm to unharness horses, feed them, tea, then feed the calves, home about 5.30, dinner at 7, bed at 9.30.23 Perhaps also the scheme could claim some success in changing farmers' attitudes to female labour. At a meeting of the War Agricultural Committee in September 1917, Mr. Combes reported there was now an urgent need for undercarters as many young men were being called up. It was desirable for girls to be trained to take their place. "From the experience some of them had had, girls were capable of doing a great deal of work (hear, hear) which farmers originally thought they were incapable of."²⁴

The government recognised the pressures on agriculture, especially at harvest time, in agreeing to release soldiers to give temporary help to farmers. Later on they formed a more permanent group of soldiers, the Agricultural Company, to give more regular help. In August 1916 it was decided to release 27,000 soldiers of whom 750 were to be allocated to Wiltshire. Farmers could apply to the local labour exchanges for the soldiers who were based in the Salisbury area. The following year 200 men of the Agricultural Company were located at Devizes barracks but it was said that only 40 of these had been accustomed to working with horses and that kind of agricultural work. In April 1917 it was reported that the military authorities had provided 1,060 men of whom 800 were supposed to be skilled ploughmen. These had originally been made available until 15 April but their stay had now been extended to 30 April. In November 1917 there were 1,300 soldiers at work on the land in Wiltshire and it seems to have stayed at this level well into 1918. Not everyone agreed that this was of great help. In July 1916, at the start of the scheme, Arthur Stratton complained that many of the soldiers were no good at all and did not understand farm work. They had simply volunteered because they wanted a change from army life.²⁵ The soldiers were not cheap. Farmers had to pay 4s. a day for each soldier or 2s. if lodgings were provided. Despite Arthur Stratton's misgivings, he used a number of soldiers during April-June 1917 at a total cost for labour and billeting of £112 6s. 2d.26

Two categories of possible help were widely rejected in Wiltshire. Conscientious objectors could be exempt from call up if they got a job of national importance which included farm work. But farmers were unwilling to take them on: "We find great difficulty in placing them. We try but they are refused everywhere."²⁷ There was a similar response to the offer of German prisoners of war after Spring 1917. The Wiltshire War Agricultural Committee thought they would be better used in road work, forestry and spade work on derelict land being brought into cultivation. The practical problem was that they were to be based in local centres in groups of 75 with 35 guards. This was of little use to the smaller



A party of soldiers helping with threshing (?) at Downton (Photograph in WANHS Library)

farms which could only make use of much smaller groups. Later the group size was reduced to 40 and, towards the end of the war, smaller groups of plough teams were being sent out to farms with very few guards. There are references to five prisoner of war camps in the county, the principal ones being at Devizes, Wootton Bassett and Chippenham. In June 1918 it was reported that 200 prisoners were being employed in Wiltshire.²⁸ A plough team of 30 prisoners was being used in February 1918 by Mr. Wilson of Ramsbury.²⁹ An inquest was held in August on the death of two German prisoners of war on the farm of Mr. Greenhill of Great Cheverell. Whey for the pigs was piped from the dairy to an underground tank eight feet deep and from there it was pumped to the piggeries. When this pump failed, the men attempted to go down a ladder and collect the whey in buckets but they were overcome by the fumes.³⁰ Apart from these references, there is no evidence of any widespread use of prisoners of war in Wiltshire.

THE ARMY PRESENCE IN WILTSHIRE

The large army presence in Wiltshire had a significant impact on agriculture in the county. The army had long used parts of Salisbury Plain for training and in 1897 started to purchase large tracts of land. By 1900 they had acquired 42,000 acres in the area roughly bounded by Market Lavington, Orcheston, Amesbury, Ludgershall and Upavon. Further land was added in the next few years, including the extension of the West Down artillery ranges westward.³¹ During the war, a number of farms were also taken over. At the beginning of the war Wiltshire had 717,819 acres of land under cultivation either arable or permanent pasture but by 1918 this had decreased to 690,781 acres. Some of this can be explained by the re-classification of some land from permanent pasture to mountain or heath grazing but undoubtedly a substantial part of the decrease must be attributable to the army expansion.

The large body of soldiers, said to be 252,000 plus their horses in late 1914, had to be fed and it was expected that most of their needs would be met from local supplies. In October 1914 a Farm Produce County Committee was established to make such local purchases and to fix the prices to be paid. Allan Young, the Chairman, wrote to the local press to try to gain the support of local farmers. He said they needed each day 70 tons of hay, 500 bags of potatoes and quantities of straw, oats and vegetables. By May 1915 they had bought 20,735 tons of hay, 5,118 tons of straw and 960 tons of bran. They would, in particular, need large quantities of palliasse straw shortly.32 The evidence suggests that this arrangement worked well and the threat of requisitioning supplies was not resorted to although there was at least an informal embargo on sending hay out of the county. The main problem was the late payment from the army and in July 1915 some £17,000 was said to be overdue.³³

The camps with their horses produced masses of manure and this was used by local farmers on their arable fields. The arrangements both for payment and carriage seems to have been left to local agreements between the farmers and their nearest camps. In May 1916, in giving evidence to the military tribunal on behalf of one of his employees, Henry Young of Bulford said he had during the previous year taken 20,000 tons of army manure.³⁴

There were many other problems associated with the army presence. Some of these are related in Arthur Street's The Gentleman of the Party which chronicles the development of the fictional (but closely based on real life) 'Sutton Manor farm' from the 1870s to the 1920s. There were also difficulties in obtaining compensation from the Army for the damage they did to crops and to livestock. The Salisbury Journal in 1917-18 reported a number of cases involving claims before the Defence of the Realm Losses Committee. In November 1917 Mr. C. E. Notley of Manor House, Upton Lovell claimed $\pounds 2,400$ in compensation for the military occupation of part of his farm, 287 acres arable and 124 acres down between Michaelmas 1914 and Michaelmas 1916. He estimated the land as having a rentable value of $\pounds 450$ but the military were prepared to offer only f_{150} a year for the arable and $f_{,30}$ for the down. There was also discussion about loss of profit from 204 ewes which Notley had had to sell. The Commission eventually awarded Notley £1,044 13s. plus £12 12s. towards costs.35 At Boscombe, Mr. W. C. Thomas claimed

 $\pounds 433$ 6s. 6d. for loss and damage through the military occupation of part of his farm plus f_{120} a year on account of rent. He was tenant of a farm of 1,637 acres, largely hill land, of which the War Office had previously taken 590 acres. The present claim concerned a further 176 acres (126 acres pasture and 50 acres down). Thomas had become the tenant at Michaelmas 1916 and the army moved in during December 1916. There was a particular dispute over 16 acres of turnips for which he had paid, on valuation, $f_{,6}$ 3s. 6d. an acre but which had largely gone rotten because the army had not allowed him to crop them. The Commission awarded the claimant £250 16s. 6d. in damages plus £120 a year in rent exclusive of rates. Mr. Targett of Birdlymes Farm, Porton claimed for a list of items including $f_{.50}$ for the lessened number of rabbits killed in the year to Michaelmas 1917 - 1,000 rabbits at 1s. each. He received his claim in full.36

PLOUGH CAMPAIGN

From the beginning of the war farmers were being encouraged to plough more land and to grow more wheat. However, there was very little economic incentive for them to do this and the amount of arable in Wiltshire changed very little between 1914 and 1917. One of the problems was that many tenanted farms had a clause in their lease which prevented the break up of pasture. Some patriotic owners were prepared to waive this restriction. For example, Lord Lansdowne's agent wrote to his tenants in September 1915:

There is general agreement as to the undesirability of ploughing up valuable old pasture but there is probably in most parts of the country a certain amount of inferior land that has either been badly laid down or has 'thrown itself down' to grass and which might be with advantage broken up in present circumstances.

Lord Lansdowne desires me to inform you that if you consider that you have any land on your farm that can be used more profitably for national purposes than at present used, he will be quite willing to waive any restrictive covenants in your agreement which might stand in the way.

I shall be pleased to look into the matter with you if you will communicate with me at your convenience.³⁷

The failure of a voluntary attempt to increase the amount of arable land led to the government decision in 1916-17 that large areas of grassland should be ploughed up, by compulsion if necessary. The reasons behind this started with the problems with the 1916 harvest. But the real impetus came with a very poor American harvest and the impact of the renewed and very successful German submarine campaign which seriously affected imports. The campaign was to be spearheaded by new local Agricultural Executive Committees which were given the task of achieving local targets set by central government. They were empowered to compel farmers to plough up grassland and they were able, as a last resort, to take over poorly run farms. Some protection was given to farmers by minimum guaranteed prices for grain.

In Wiltshire the Executive Committee was established by the War Agricultural Committee in December 1916, although its minutes exist only from 1 January 1918. At that time the membership was: A.R.White (Chairman), R.Butler, E.Coward, R.E.Macan, E.Pritchard, F.R.Rogers, J.W.Spencer, J.B.Stevens, A.Stratton and E.G.Warren. The officers were: W.T.Howes (Executive Officer), E.C.Skurray (District Organiser for Ploughing), W.S.Oram (Machinery Officer) and James Welch (Horse Officer). The committee established its own local sub-committees of local farmers who knew the area and the land well. The original target for Wiltshire was to plough up an additional 85,000 acres, approximately half the grassland which had been laid down in the previous 45 years. In 1872 Wiltshire had 425,777 acres of arable and this had been reduced to 258,927 acres by 1913. After various protests and representations the Wiltshire target was reduced to 48,000 acres. The aim also was that 65% of the arable should be set to corn.³⁸

The committee did not find it easy to work towards the targets it had been set. In many parts of Wiltshire dairy farming was well established and particularly profitable. Farmers were reluctant to lose good pasture land, often of heavy soils, which they maintained would not be suitable for ploughing. A fairly typical reaction came from Mr. Horton at a meeting of the Swindon N.F.U. He said that in 1879 his father had a lot of heavy land and it used to grow pretty well everything that was bad. The land was laid down in 1882 and now it had got into really good turf and his brother was milking 120 or 130 cows on it. This opinion was reflected in the formal resolution of the Swindon N.F.U. in June 1917:

That this meeting of members of the Swindon Branch

of the National Farmers Union while realising their responsibility as food producers and willing to meet the views of the Board of Agriculture to the best of their ability, in finding suitable grass land for cultivation, views with concern the Government proposals to order the ploughing up of grass land and is of the opinion that if every effort were made to thoroughly and systematically cultivate the land now under the plough and make satisfactory arrangements for the distribution of all available artificial manures, much more would be done for the national good than by adding to the already appalling amount of foul land and doing away with valuable turf which in view of the predicted shortage of feeding stuffs, would produce hay or grass to maintain the supply of meat and keep up the ever decreasing supply of milk.39

A more jaundiced but probably realistic view was reported by the Tisbury sub-committee: "Every farmer had great sympathy with the movement over the hedge! He would tell of thousands of acres which ought to be broken up and gave them the actual history and dates when his neighbour's land was sown down but he generally had some special reason why his own land should not be touched." The Tisbury chairman explained that in his area 6,547 acres had been laid down since 1872 and they had identified 3,304 acres to be broken up. In general they had applied the 50% rule to each farm but in some cases they found that land which had previously carried 12 sacks of wheat an acre had deteriorated into something inferior to good downland and in these cases the committee had hardened their hearts and scheduled more than 50%. They considered they had achieved their task without disturbing one milking cow.40

In March 1917 the government proposed minimum prices for grain over the next five years in order to give farmers some security:

Proposed guaranteed prices for grain

	per qu	arter
	Wheat	Oats
1917	60s. 0d.	38s. 6d
1918-19	55s. 0d.	32s. 0d.
1920-22	45s. 0d.	24s. 0d.

Source: Devizes Gazette 1 March 1917.

Table 1

This did not seem a sufficient incentive to encourage many Wiltshire farmers to plough up grassland. Part of the problem was that this was linked to a minimum wage of 25s. a week for farm labourers. Gordon Redman of Collingbourne Kingston argued that the proposed prices for 1920 were too low. He calculated that his profit would reduce from £958 a year to £723:

 Table 2
 Estimated profit on farm at Collingbourne

 Kingston
 Image: Colling State of
Average for years 1910-1913:	£	
521 qrs of wheat grown and sold for	888	
744 qrs oats	719	
	1607	
20 labourers (17 men, 3 boys)	<u>649</u>	
Profit	<u>958</u>	
Estimate for 1920-2		
521 qrs wheat	1172	
744 qrs oats	<u>849</u>	
	2021	
Labour bill	<u>1298</u>	
Profit	<u>723</u>	

Source: Devizes Gazette 8 March 1917.

A similar calculation was nicely put by E. Pritchard of the Swindon N.F.U. He said that the price of corn in three or four years time would be 22s. 6d. a sack while the minimum wage for labour was to be 25*s*. a week. His father used to say that no corn would be produced if the farm labourer carried away a sack every Saturday night!⁴¹

Although many areas were identified for ploughing agreement, the local sub-committees found it difficult to achieve their target. It was at that stage that the Executive Committee resorted to its compulsory powers. By February 1919 the committee had issued nearly 3,000 ploughing orders although probably a number of these were technical in the sense that if the farmer was ordered to plough up a particular piece of land it strengthened his hand in any later claim if the crop failed. The orders were very precise in identifying not only the particular field but exactly how it should be cultivated and the crop to be sown. For example, an order was issued in March 1918 to Carrol Ansdell, tenant, for the cultivation of Rowden and Cowesfield Farms in Whiteparish.On a smaller scale, Albert Scull of West End, Westbury, was ordered to summer fallow, clean and plant to autumn wheat 6.415 acres of land near to the cemetery and adjoining the Rifle Range path at Westbury. Orders could involve not only ploughing but other aspects of good husbandry. F.H.Seymour of West Park Farm, Market Lavington, for example, was ordered to cut and lay hedges and clean ditches in two fields.42

Most farmers seemed to have responded to the orders of the Executive Committee at least when legal proceedings were started. But some cases did

Table 3 Crop rotation ordered for farms at Whiteparish, 1918

Rowdens Farm		
Partridge Close:	16.951 acres.	Fallow after barley, to be sown to Spring oats.
Bucklebury:	11.461 acres.	Roots fed, to be sown oats.
Big Stoney Dean:	21.313 acres.	Ploughed after oats, to be sown to barley.
Pamula:	17.215 acres.	To be planted to oats after wheat.
Cowesfield Farm		
Big Barn Croft:	8.752 acres.	Roots fed, to be sown to barley.
Fifteen Acres:	15.654 acres.	Ploughed after wheat stubble, to be sown to oats.
Forty Acre Field:	41.710 acres.	8 acres swedes and kale, to be sown to barley. 12 acres
		ploughed after barley, to be sown to oats.
. Mirwood Field:	59.617 acres	13 acres 2 roods fallow after roots fed, to be sown to oats.
Great Homefield:	34.079 acres	16 acres after oats and peas, to be sown to barley. 8 acres
		fallow after wheat, to be sown to oats.
Middle Broadfield:	12.394 acres.	Fallow after wheat, to be sown to oats.
Newly broken up field:	15 acres.	To be sown to oats.

Source: Minutes, Wiltshire Agricultural Executive Committee, 6 March 1918.

get to court and fines were levied. In November 1918, for example, it was reported to the committee that Mark Jeans had been convicted of failing to plough up 27 acres of land on King Hall Farm, Milton, Pewsey. He was fined $f_{.5}$ with 5 guineas costs.43 Perhaps the most notable case involved John Ashby of Steeple Ashton who was not only a wellknown farmer but also a magistrate and chairman of the Trowbridge branch of the N.F.U. The Executive Committee had used a formula requiring each farmer to put to the plough 40% of the land put down to grass since 1872. Strictly this required 311/2 acres from Ashby but the committee had reduced this to 23. He agreed to plough 10 acres and eventually did so but he resolutely refused to plough the rest claiming it was too heavy soil. He also refused to nominate a more suitable area of his farm. In court it was said that he was stubborn and obstinate and all the coaxing and consideration would not change him. He was found guilty and fined 10 guineas with $f_{.5}$ 15s. 6d. costs.⁴⁴

A more serious step was to take over a farm or pieces of land if the committee thought it was not being cultivated efficiently. The minutes of the Executive Committee, for example, record the decision in March 1918 to take possession of two pieces of land belonging to Sir Frederick Banbury, M.P. of Warneford Place, Highworth. There was also a threat to take over Horwood Farm, Ansty, belonging to Lady Arundell as it was not being cultivated to increase as far as practicable the food supply of the country. This was later altered to an order to plough a field of 40 acres on the farm.45

The committee was more perplexed by Malmesbury Common. By January 1918 the area was still some 1,200 acres short of its target. A meeting of farmers from the area was called and various pledges were made but these amounted to only 200 acres. It was then suggested that Malmesbury Common should be taken over and ploughed up. This consisted of about 200 acres in 150 allotments. Many of these had not been cultivated and had 'tumbled down' in the last 40 years. Many were owned by old people and aged widows who could not afford to have the land ploughed. The committee was concerned that the common might be protected by charter and therefore could not be taken over.46

The largest farm taken over by the Executive Committee was Foxley Farm in Malmesbury Without consisting of 719 acres and belonging to Colonel Wyatt William Turnor of Pinkney Park, Malmesbury. Having taken possession of the farm,

the committee then leased 650 acres to Mr. Sidney Maundrell at a rental of $f_{1,550}$ a year. He was to be allowed f_{100} spread over the next four years to meet the expense of repairing live fences, cleaning water courses and erecting new post and wire fences. An inspection a year later found the farm to be in much better condition generally.47

Despite the gloomy predictions by farmers, the vield of grain from the newly-ploughed land across the country was not substantially inferior to that on existing tillage except perhaps in barley. There was, however, wide variation from farm to farm depending largely on the different processes of cultivation which had been used. In August-September 1917, representatives of the Board of Agriculture inspected 2,300 acres of newly ploughed land in the eastern part of Wiltshire. Their report covered 18 separate pieces of land. Of these 12 were considered to have been successful, 2 had been failures and the others doubtful. The contrasts can be seen from the following examples:

1,000 acres oats, chiefly Black Tartarian sown from February to May on medium loam overlying the chalk at 300-400 feet above sea level. Broken up from January to April by steam ploughs and tractors to depth of about 4-5 inches and then pressed. Seed broadcasted, harrowed in and rolled several times with heavy rollers. Two rollers drawn by tractors were started immediately after sowing and worked continuously so long as it was possible to roll the corn. On the whole, the crop was successful especially in the case of oats sown in February and March on a moist seed bed. Those on a dry seed bed in April and May were attacked by wireworm. Sulphate of ammonia was applied to parts of the crop.

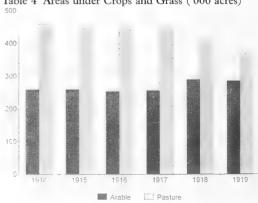
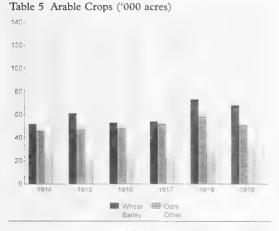


Table 4 Areas under Crops and Grass ('000 acres)



140 acres oats sown March 15 to April 21 on loam soil overlying chalk 500-660 feet above sea level. Land had been grass for 18 years. Ploughed by tractor plough to depth of 4 inches, harrowed 3 to 4 times with Parmitter's harrow and rolled twice with a heavy Cambridge roller. 100 acres received 1 cwt. sulphate of ammonia and 1¼ cwt. basic phosphate per acre. Rest not manured. Crop party successful and partly a failure. Good results on land ploughed 1 March to 7 April. Wireworm destroyed crop on land ploughed before March.

300 acres oats, chiefly Tartarian. Sown March-April on good loam overlying chalk. Had been grassland for 17 years. Ploughed in February-April by steam plough to depth of 8 inches, pressed, harrowed four to six times and rolled. Many parts of the crop failed and, on the whole, would hardly pay costs of cultivation. Soil not so firmly compacted. Problems with dry weather and with fruit fly and wireworm.

The most common problem was that of wireworm. Experience from the first year suggested that this was particularly present on loose land and it could be overcome if the land was consolidated by several rollings - as many as ten times in some instances.⁴⁸

When the Executive Committee was disbanded in February 1919 it claimed that approximately an additional 45,000 acres had been brought into cultivation compared with the target of 48,000 acres.⁴⁹ In fact, the returns to the Board of Agriculture showed that the targets were not nearly reached. The increase in arable land between 1916 and 1918 was only 36,168 acres and the proportion of the arable sown to grain (wheat, oats and barley) increased from 48% to only 56% compared with the target of 65%.⁵⁰

MECHANISATION

On the outbreak of war, mechanisation in Wiltshire agriculture was very limited. But the demand for substantial areas of land to be ploughed up after 1916 could be achieved only by the use of tractors and mechanical ploughs especially in view of the shortage of labour.

Some steam ploughing was certainly taking place on the larger farms and steam ploughmen were being given exemption from call-up because of the importance of their work. Arthur Stratton of Alton Priors, for example, had five sets of steam ploughs complete with instruments and vans. He kept one for his own farm and the other four he used for contract work on other farms:

- Class B.B. compound Engine. New in early Spring 1914 with implements, etc. Nos. 14344 and 14345
- Compound 9 years old with implements. Nos. 12032 and 12033.
- 12 H.P. (old type) about 46 years old with implements.
- Odd set. One 12 H.P. Engine about 46 years old. One 14 H.P. (new type) 40 years old.
- Old horizontal converted Engine about 56 years old with implements complete.⁵¹

Steam ploughs were cumbersome to use and especially to move from farm to farm making it difficult to get full use from them. In January 1918 the Agricultural Executive Committee enquired into the use of the steam ploughing tackle belonging to Messrs. Rawlings and Sons of Chiseldon and to Mr. R.W. Eavis of Woodborough. The committee was not satisfied that the machines were being used efficiently and there was no guarantee that they would be offered to other farms. It was recommended therefore that they should be taken over by the government.⁵²

Some tractors were also available. In September 1915 T.H.White Ltd. of Devizes held a demonstration at West Park Farm, Market Lavington, of new agricultural machinery, especially two types of oil tractor from the International Harvester Co. The larger tractor of 25 H.P. weighed only 4 tons and so was said to leave no impression on the ground. It required one man in charge of the tractor and one who sat on the plough steering from his seat by means of a lever close at hand and a similar convenient means of increasing or reducing the depth. It ploughed an acre in just $1\frac{1}{2}$ hours.



Advertisement for the 'Overtime' tractor, published in Devizes Gazette, 16 May 1918

The smaller 16 H.P. tractor, the 'Kid-Kangaroo', weighed $2\frac{1}{2}$ tons and was demonstrated with a three furrow plough. It took $1\frac{1}{2}$ to 2 hours to plough an acre.⁵³

Milking machines also existed and their numbers increased during the war. But they were still relatively rare and only economic on the larger farms. There was some prejudice against them by some farmers such as Samuel Tucker of Holt who, although he used a machine, claimed that the cheese was not so good as from hand milking.54 In February 1915 White's of Devizes were advertising Lister milking machines and one was bought by Arthur Stratton for £146 4s.55 Another advertisement for the Wallace milking machine included testimonials from W.G. Willis of Overtown House, Wroughton, and T. Edwards of Barton Farm, Marlborough. Other satisfied owners were said to be: W.Gauntlett of Grafton, H.Horton of Costow Farm, Wroughton, H.D.Cole of Broomsgrove, Pewsey, E.Maidment of Oare and B. Davis of St. Martin, Zeals.⁵⁶

The large-scale introduction of tractors in 1917-18 was organised by central government and was run locally by the Agricultural Executive Committees. Over this period the government ordered £4.7 million worth of tractors, mainly from America including 6,000 Fordson tractors, 3,750 Oliver ploughs and 2,632 Titan tractors (International Harvester Co.). There were particular problems in getting delivery of the Fordsons which did not come in any quantity until 1918. The government started mainly with Titans and Moguls. But by the end of the war 26 models were on the market, although the government concentrated on just six: Titan, Overtime, Clayton and Shuttleworth (caterpillar), Saunderson, 25 H.P. Mogul and Fordson. The Executive Committees also recruited skilled drivers and ploughmen so that complete teams could be deployed across the county. The committees could also take over and use privately owned tractors although it was agreed that these would be returned to the owners by 1 May for their own use.⁵⁷ A trial of the 16 H.P. Mogul pulling a Canadian Cockshutt 3-furrow plough was reported. It ran at a speed of 3 m.p.h. and used $2\frac{1}{2}$ gallons of paraffin per acre. Normally it could plough 5 acres a day but in ideal conditions it could manage 3/4 acre per hour. Three caterpillar ploughs, lent by the Russian government, were also tried in Wiltshire but these proved to be unsuccessful and were returned. Much better was the Bullock Creeping Grip tractor (a type of caterpillar) which had come from America.58

The organisation of the Wiltshire teams was undertaken by Ernest Willis of the Central Garage, Devizes who was about to take up a commission in the tractor company of the A.S.C. but who was diverted to this new task. In March 1917 advertisements were placed in the local press for drivers of motor tractors for ploughing, either fulltime or part-time, working 8-hour shifts. The first sign of the arrival of the government tractors in Wiltshire was a report to the War Agricultural Committee in February 1917 that two motor



Advertisement for the 'Wallace' milking machine, published in Devizes Gazette, 18 Feb 1915

AGRICULTURE IN WILTSHIRE IN THE FIRST WORLD WAR

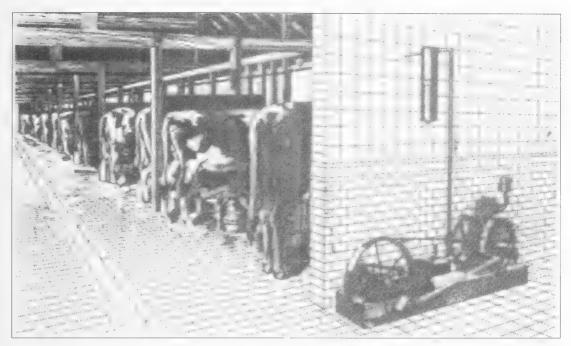


Illustration from advertisement for the Lister milking machine, published in Devizes Gazette, 11 Feb 1915

ploughs were available - one at Dean Station and the other at Dinton Station. After that a steady stream of different sorts of tractors arrived so that by November 1917 there were 64 in the county.

Throughout 1918 there were regular reports to the Agricultural Executive Committee of the arrival of new tractors and of their deployment. For example, in January 1918 a batch of 10 Titan tractors with Cockshutt ploughs arrived; 2 went to Chippenham, 2 to Pewsey, 5 to Tetbury and 1 to Swindon. Titans continued to dominate, although the government did buy one Overtime from Skurray's in Swindon. In February there was a delivery of 10 Parrett tractors for Warminster and Salisbury followed by 10 Saundersons. The first Ford tractors seem to have come in April together with 2-furrow Oliver ploughs. They went to Swindon, Chippenham, Warminster and Salisbury. At the end of April 1918, 93 tractors were in use in the county. During the month they had ploughed 5,442 acres and Wiltshire was second in the national league table for the average number of acres ploughed per tractor. The Fordsons were reported as being particularly successful.⁵⁹ By the end of 1918 tractors seem to have been much more readily available and advertisements appeared in the local press for Titan and Overtime tractors for private buyers. The Strattons, for example, bought a Titan

tractor in 1918 from T.H. White's for £465 14s. This compares with the £2,425 they paid for a complete steam ploughing set and tackle in 1915.⁶⁰ There seems little doubt that the ploughing campaign could not have been undertaken without this injection of new motor tractors. Also this crash programme was the start of a mechanisation of agriculture which continued after 1918.

MANOR FARM, LITTLE BEDWYN AND PEARL FARM, CHOLDERTON ESTATE

It is instructive to look at some particular farms and to see what changes took place on them and the extent to which they followed the general trends. Manor Farm, at Little Bedwyn near the Berkshire border, was run by Samuel Farmer and consisted of 1,181 acres, 691 acres of which he owned and the remainder he leased. About a third of the farm was arable; it had a substantial sheep flock and also a dairy herd.⁶¹ Pearl Farm, by contrast, was situated further south on downland. It formed part of the large Cholderton estate owned by H. C. Stevens and had been brought in hand immediately before 1900. It was smaller at 308 acres with predominantly sheep. It grew fodder crops but, before the war, virtually no grain.⁶²

At Manor Farm the pattern of the changing proportions of arable and grass land followed fairly closely the county trend. In 1914 there were 404 acres of arable but this had decreased to 359 acres by 1917. Then considerable ploughing up took place so that in 1918 the arable had increased to 499 acres and to 508 in 1919. In March 1918 he reported that he had ploughed up 176 acres since June 1917. The proportion devoted to wheat increased significantly from 75 acres in 1914 to 128 acres in 1918 and to 192 acres in 1919. This was offset by a decrease in oats from 190 acres in 1914 to 62 acres in 1919. Barley was not grown at all until 1917 when 36 acres were planted.

For the county as a whole the number of sheep gradually decreased each year. At Manor Farm the flock actually increased from 726 in 1914 to 957 in 1917. There was then a quite dramatic drop in numbers in 1918 to 715. The number of cattle remained fairly constant at around 250 of which about 60% were cows in milk. Production of milk was still a major aspect of the farm. In June 1918 there were 168 cows in milk and they were producing about 2,000 gallons a week. Almost all of this was sold wholesale and only 17 gallons retained for household use (butter and cheese) and for the employees.

Although the farm's list of employees included three steam ploughmen, there was no mention of

such implements in the farm's inventory in April 1917. Then they still had five horse ploughs, three horse cultivators and 12 harrows. The farm must have relied heavily on its horses for throughout the war the number of horses on the farm remained at about 30. Half of these were heavy horses used in agriculture, 8 or 10 were young, unbroken horses and the remainder were lighter horses used for pulling carts, vans and carriages.

The labour force had been affected by recruitment into the army. In November 1916 the farm had 25 men and 2 women. By that time 9 had left to join the army and 5 had been moved to work on the Great Western Railway. Of the men left, only 8 were of military age (i.e under 41). Of these, 4 had been given temporary exemption and 2 were medically unfit. The employees comprised 3 carters, 11 milkers, 3 steam ploughmen, one shepherd, a blacksmith and the remainder general labourers.

Although the farm followed the county trends in general, a higher proportion of its grassland was ploughed up than might have been expected. Clearly it was this ploughing up of the permanent pasture which led to the sudden decrease in the size of the sheep flock. Also, although its total labour force may have remained about the same in number, the youngest and fittest men had left. The average age of the workers thus increased significantly with 7 between 50 and 60 and 4 over 60.

Pearl Farm was divided into 11 fields each of 24 acres with 44 acres of homestead, woods and roads. The rotation of crops shows only a limited

Table 6: Pearl Farm, Cholderton Estate: Crop Rotation

Field	Oct 1915	-Oct 1916	Oct 1916-	-Oct 1917	Oct 1917-	Oct 1918	Oct 1918 -O	ct 1919
41	Pasture	Pasture	Pasture	Pasture	Pasture	Pasture	Pasture	Pasture
42	Pasture	Pasture	Pasture	Pasture	Pasture	Pasture	Pasture	Pasture
43	Pasture	Pasture	Pasture	Pasture	Pasture	Pasture	Pasture	Pasture
44	Pasture	Pasture	Pasture	Pasture	Pasture	Pasture	Pasture	Pasture
45	Pasture	Pasture	Pasture	Pasture	Pasture	Pasture	Pasture	Pasture
46	Fallow	Cabbage	Cabbage	Cabbage	Cabbage	Rape and turnips	Turnips and rape	Winter oats
47	Cabbage	Winter barley	Mustard	Winter barley	Winter barley	Broccoli	Broccoli	Rape
48	Winter barley	Winter oats	Winter oats	Cabbage	Cabbage	Rape and turnips	Kale	
49	Pasture	Pasture	Pasture	Pasture	Pasture	Oats	Oats	Barley
50	Oats	Cabbage	Cabbage	Mangolds	Mangolds	Wheat	Wheat	Kale and turnips
51	Fallow	Cabbage	Mustard	Winter	Winter barley	Winter barley	Winter barley	Lucerne barley

Source: W.R.O. 1894/7, Cholderton Estate Farm Accounts.

response to the war time demands, especially the ploughing up campaign. Five fields, almost half the farm, remained in permanent pasture throughout the period. It was used mainly for grazing sheep although cattle and horses are mentioned – Highland cows in 1915-16. The root crops and cabbage were also used for grazing sheep in folds. One field, 49, which had been used mainly for hay, was ploughed up in 1917-18 and sown to oats and then barley. There was also a change in field 50 when wheat was grown for the first time on the farm. This field produced 90 quarters of wheat which, at a yield of 30 bushels per acre, was very close to the county average.

OUTPUT

The success of the government's policy and the changes in agriculture must be measured by the extent to which the country's need for food was met.⁶³ The most important issue, especially as the war progessed, was the production of grain, especially wheat. The total output of wheat, oats and barley in Wiltshire increased slowly between 1914 and 1917. It then increased very significantly in 1918 with a total of 699,000 quarters compared with 510,958 quarters the previous year. It then dropped back in 1919 to 563,000 quarters but was still 10% higher than in 1914.

There was, however, considerable variation in the proportions of wheat, oats and barley within the total output of grain. In 1914, wheat represented 39% of the total, oats 41% and barley 20%. By 1917 the proportion of wheat had declined to 37% and oats had increased to 46%. The ploughing campaign of 1917 was reflected in the huge increase in grain in the 1918 harvest. The output of wheat, oats and barley all increased but the most significant change was in wheat when production increased from 191,000 quarters to 295,000 quarters, 42% of the total grain harvest.

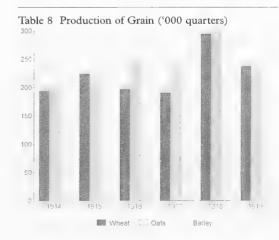
The output of grain depended, of course, not only on the acreage under cultivation but also the yield. The first few years of the war saw reasonably good harvests although the yields tended to be lower than for the ten-year average before the war. In 1917 the harvests were poor and this was an added incentive to plough up more land. The following year saw not only the effects of the increased amount of land under cultivation but also good yields, even from the newly ploughed grass land. Table 7 Wiltshire grain yields 1905-1919

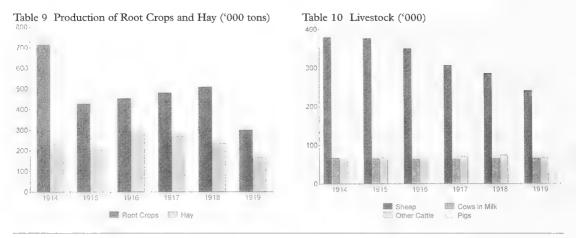
	Yield in bushels per acre						
	Wheat	Barley					
Av.1905-14	32.0	42.8	31.9				
1914	29.8	35.3	29.8				
1915	29.6	35.9	27.7				
1916	29.6	40.9	32.7				
1917	28.4	36.0	29.0				
1918	32.5	41.3	30.9				
1919	28.0	26.4	26.0				

Source: Agricultural Statistics 1914-1919 (Parliamentary Papers Vols. XLIV to LIV)

But, if more attention was being paid to arable and the production of grain, then something else had to suffer and that was some livestock. The number of cattle actually remained almost the same throughout the war and the proportion of these being cows in milk stayed consistently at about half. The demand for fresh milk remained constant and, as this was not a product which could be imported, the problem of shipping did not affect it. Milk was also one of the most profitable of the agricultural products and this again persuaded farmers to maintain production at the pre-war level.

The major impact, however, was in the decline in the number of sheep and pigs. The number of sheep in Wiltshire decreased steadily each year throughout the war. In 1914 there had been 379,133 sheep in Wiltshire but by 1919 this was only 241,237. The change was largely attributable to the decrease in pasture, the shortage of feed and, above all, the shortage of skilled shepherds. The decline in pigs was even more marked from 56,189 in 1914





to 28,781 in 1919 (i.e. less than half). Again the main cause was said to be the shortage of feeding stuffs. Milling offals, barley meal and maize meal had been widely used but these came to be in short supply and more expensive as they were increasingly used for human consumption. The decrease in sheep and pigs was more marked in Wiltshire than in England as a whole. By the end of the war, Wiltshire had 2.03% of the country's sheep compared with 2.78% in 1914; the share of pigs also decreased from 2.51% to 1.77%.

The overall decrease in livestock was perhaps the reason for a similar decrease in the production of root crops (turnips, swedes and mangolds). The output of 713,036 tons in 1914 must be compared with the very much smaller one of only 299,000 tons in 1919. But the area devoted to potatoes, although only small, doubled during the war and the output increased from 14,197 tons to 32,000 tons. This probably reflected the fact that potatoes were relatively easy to grow and were likely to produce high yields of foodstuff.

REGULATION

The First World War saw the regulation of industry and many aspects of everyday life on a quite unprecedented scale. Conscription into the armed forces and the compulsory ploughing of grass land were, perhaps, the most significant items affecting agriculture but there was a host of other minor regulations with which farmers had to contend.

The shortage of wheat after 1916-17 was met by a set of rules on the production and sale of bread which must be seen alongside the increase in arable land. The most important of the changes was to increase the extraction rate of flour from wheat. Before the war it had normally been about 70%; in 1916 it was raised to 81% and later it went as high as 90%. Bread had to contain at least 10% and not more than 25% of flour made from cereals other than wheat. These cereals were barley, maize, oats, rye and beans. Soya bean flour could also be used but it was limited to 5%. This resulted in a 'grey' loaf which was unpopular and subject to constant complaints. However, it has been argued that this resulted in a greater contribution to the nation's food supply (an additional 1.8 billion calories in 1917 and 3.7 billion in 1918) than the ploughing campaign achieved.64 The regulations also said that bread must not be sold until at least 12 hours after it had been made and some Wiltshire bakers were successfully prosecuted for breaches of this rule. Presumably one was likely to eat less bread if it was stale than if it was new; also, perhaps, new bread is very difficult to slice thinly and this would mean greater consumption.65

At the beginning of the war, the army commandeered a large number of horses from local farms. The army's need for a continuing supply of horses was also the reason given for the support of hunting during the war. In 1915, for example, the Director of Remounts was urging the military tribunals to look sympathetically on hunt employees as hunting was a means of continuing the breeding and raising of light horses suitable for cavalry work.66 In fact the whole trade in horses was closely regulated throughout the war. In 1917 David Cutler was summonsed for selling a horse to Herbert Hill. Cutler had obtained a licence to sell the horse at Salisbury market but only to someone who occupied an agricultural holding. Hill used the horse for carting road materials. Despite claiming that the horse was an old crock and ought to have been killed, Cutler was fined 10s. and Hill $\pounds 1.67$ At the end of the war there were large sales of army horses. In December 1918 the *Swindon Advertiser* reported a local auction of 99 horses, 2 of which made 49 guineas each while the others ranged down to 10 guineas.⁶⁸

Another contentious issue was the Davlight Saving Bill, i.e. the introduction of British Summer Time. This was opposed by a large number of farmers and a lively debate ensued in the local press. Mr. Perrett, for example, maintained: "You cannot alter the sun time. In many cases, especially towards autumn, when they had some barley to set, if they got up an hour earlier they would only be able to look at it until the afternoon and then it was nearly time to go to bed." There was also some difference of opinion about the impact on dairy farmers especially those who relied upon their milk catching the special trains to London. It was said that the morning's milk had to arrive in London by 10.30-11.30. It was then pasteurised and cooled before leaving for the afternoon delivery at 12.0-1.0. The evening's milk was sent overnight in time for breakfast in London. It seems unlikely that the change in the clocks had any significant impact on these arrangements.69

A further break with tradition came in March 1917 when it was decided to work on Sundays to try to ensure that the land was ploughed and crops sown. The season had been particularly late with especially hard frosts in February. The workers of Mr. Maton of Enford, for example, volunteered to work on four Sundays. As a result 280 extra acres were ploughed. There were many, however, who objected. Mr. A.W.Perren of Stanton Mill, Pewsey maintained that God promised seed time and harvest and he had not failed yet - provided we as a nation did not walk contrary to him. Mr. E.A. Rawlence, a Sabbatarian from Salisbury, also claimed that the Church should have called churches to special prayers for a favourable seed time and a prosperous harvest instead of sending men and horses to extra labour. If they had done this, he had faith to believe that we should not have had this particularly bad weather. However, the Archbishop of Canterbury and the Bishop of Salisbury had agreed that the exceptional circumstances warranted this Sunday working. There was some compromise at Enford when an open air service was held in the field. It was conducted by the Rev. W.H.Banford, vicar of Enford, and the Rev. P. Dale, rector of Fittleton, with a sermon on the text: "The Sabbath was made for man and not man for the Sabbath." It was said that this service was the first of its kind in England.⁷⁰

Finally the increasing mechanisation of farming, with more milking machines, stationary engines and motor tractors, could only be sustained if there was a sufficient supply of petrol. But petrol was rationed or, at least, subject to specific allocation by the government. Already by 1916 the farmers were claiming that the allocations were insufficient and they were often getting only half of what they had requested. Mr. Blanchard of the Devizes N.F.U., for example, said he had to run a milking machine which used about six gallons a week and he also had to pump water for two farms, a house and cottages. He was only allowed seven gallons whereas he had asked for 12.⁷¹

CHANGES IN LAND OWNERSHIP

It has been estimated that a quarter of agricultural land in England changed hands in the first few years after the war. Many estates began to be broken up and sold from the end of 1917 onwards. In general, this resulted in increasing pressure on large landowners and reduced profitability of land. During the war there had been restraints on the increase of rent but the cost of maintenance, repairs and labour had increased sharply. Income tax on rent was also increased; before 1914, on the Wilton and Savernake estates, income tax was 4% of gross rents but by 1919 it was over 25%.⁷²

In some cases the break up of an estate was directly related to the death of the owner or his heir during the war. In July 1915 the Amesbury Abbey estates were sold. Sir Edmond Antrobus' son was killed in the war and Sir Edmond died shortly afterwards. The auctioneer regretted that the estate which had been in the hands of one family for so long would have to be sold and he hoped someone would buy the lot. He was disappointed and it had to be disposed of in 75 lots with many different purchasers although much was bought by what was described as the 'Salisbury Syndicate'.⁷³

In its report on the sale of the Rushall estate in July 1917, the *Devizes Gazette* said this was "part of the movement which has for some years been going on in all parts of the country, the change of ownership of property from noble and old county families that have held it for generations, maybe for centuries, to members of the old yeoman stock

Table 11 Agricultural holdings in Wiltshire 1914	Table 11	Agricultural	holdings	in	Wiltshire	1914	and	1919
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	Number of Agricultural Holdings (acres)						
	1-5	5-20	20-50	50-100	100-150	150-300	over 300
1914	1483	1649	1021	770	475	714	652
1919	1271	1513	1029	807	499	745	568
					· · ·		200

Source: Agricultural Statistics 1914 and 1919 (Parliamentary Papers Vols. XLIX and LIV)

or tenants who have been in occupation."⁷⁴ Other land being sold at this time included the Meux estate in north Wiltshire, Walter Long's Rood Ashton property, outlying tracts belonging to the Earl of Radnor and parts of the estate of the Earl of Pembroke. Rider Haggard, writing in 1918, commented that "now-a-days the ownership of land is nothing but one constant worry and expense, especially if it be burdened and repairs are needed while (the landlord) is loaded with abuse, pelted with 'orders' and hunted by perpetual demands for money."⁷⁵ Yet, despite this, land did sell very well when it was put on the market and, in 1917, some auctioneers said they had never been so busy.

The sale of the Rushall estate is a good example of the break-up of a large tract of land stretching to 4,600 acres. At auction, the estate was offered as a whole and bidding reached $f_{.69,750}$ when it was withdrawn. The estate was then offered as 78 separate lots; 70 of which were then sold at the auction and the remainder privately. Some of the farms were bought by the sitting tenant but others were clearly bought as an investment rather than as owner-occupied. One lot, for example consisted of Manor Farm and the Dairy Farm at Manningford Bohune. Together they comprised 1,133 acres with a farmhouse, 14 cottages and spacious farm buildings. There was spirited bidding between the tenant, Frank Stratton, and William Rawlings of Appleshaw who eventually won with a bid of \pounds 19,200. By 1920 the occupier of these farms was Charles Wookey and it seems most likely that he was there as the tenant. On the other hand,

Beechingstoke Farm and Bottle Farm with five cottages and 305 acres was bought by the tenant, Mr. R. Eavis for £6,650. The largest buyers were Mr. A. Haynes of Burley, Ringwood, Mr. E. H. Jellett of London and Mr. W. Rawlings of Appleshaw, Andover. Many of the farms made over 50 years purchase which was considerably higher than would have been expected before the war.⁷⁶

A rather similar pattern can be seen in the sale of the Monkton Estate at Winterbourne Monkton, the property of Nathaniel Young, and comprising 2,040 acres. Again the estate as a whole failed to find a successful bidder (it was withdrawn at (30,000) and it was then sold in individual lots. West Farm, Winterbourne Monkton, consisting of 794 acres with a farm house, farm buildings and 15 cottages was bought by Henry Horton of Eysey, near Cricklade for $f_{.11,750}$. The occupier in 1915 was James Peak-Garland and, in 1920, it was William Tucker. It would seem therefore that this was and continued to be a tenanted farm. However, Middle Farm, Winterbourne Monkton, of 565 acres with eight cottages went to Mr. F. Greader, farmer, of Horton for £7,000. In 1915 the occupier was Harry Greader and he was still there in 1920. It is probably safe to assume that the ownership of this farm had at least passed to the family of the tenant.77

The main impact of this change in land ownership would not be felt until some years after the end of the war as estates continued to be sold. But some significant changes had taken place by 1919. Compared with 1914, the total number of holdings had fallen from 6,764 to 6,432. As might

Table 12 Owner-occupied holdings in Wiltshire 1914 and 1919

Number of Owner-Occupied Holdings (acres)

	1-5	5-20	20-50	50-100	100-150	150-300	over 300
1914 1919		205 197					82 102

Source: Agricultural Statistics 1914 and 1919 (Parliamentary Papers Vols. XLIX and LIV)

be expected, the number of large holdings of over 300 acres had fallen from 652 to 568 half of these disappearing between 1918 and 1919. Perhaps surprisingly, the greatest change was the decrease in the number of the smallholdings between 1 and 5 acres. Their number had fallen by 212 and it is not obvious why this had happened. Most had been tenants rather than owners and their land could have been taken into larger holdings. The largest annual decrease was between 1916 and 1917. This was the period of great pressure on army recruitment and, maybe, as they did not qualify for exemption from the armed forces, many were called up.

The number of owner-occupied holdings increased from 816 to 911. This was complicated by the decrease in the number of very small holdings which were owner-occupied but a significant increase in the number of such holdings over 50 acres. This explains why, although the percentage of owner-occupied holdings increased by about 2%, the acreage of owner-occupied land increased by 5% from 12% to 17%.

CONCLUSION

At the beginning of the war Wiltshire's agriculture was very typical of the country as a whole. In the same way, during the course of the war, the changes in Wiltshire which occurred largely as a result of government intervention very much echoed the general trends elsewhere. There is very little in Wiltshire which was atypical during that period. The loudest and continuing complaint was about the shortage of labour. Wiltshire was a pioneer in training women especially as milkers but there is little evidence that this was the start of a continuing and widespread involvement of women in agriculture after the war. It is, in fact, very difficult to see lasting changes in Wiltshire's agriculture which came about because of the war. Much of the newly ploughed land was allowed to revert to pasture and agriculture became once again much more influenced by economic and market forces than by government control. The two aspects which did see lasting changes were in mechanisation and land ownership. The introduction, in particular, of motor tractors continued and expanded after the war and has continued to do so. In land ownership, some of the larger estates were broken up and this led to a much greater number of owner-occupiers. Finally, it has been shown that by increasing production and changing its crops, the agricultural industry compensated for the significant decline in imports and ensured that the food supply during the war was at least adequate. It has been calculated, for example, that the average calorie intake of a man in 1919 was still 97% of that in 1914. There can be little doubt that agriculture in Wiltshire made its contribution to this achievement and largely reached the targets it had been set.

Notes

- ¹ Agricultural Statistics 1914 (Parliamentary Papers, 1915) Vol. XLIV Table 5.
- ² Agricultural Statistics 1914 Table 3.
- ³ I.M.Slocombe, *First World War Tribunals in Wiltshire* (Wiltshire Family History Society, 1997), pp. 14, 160.
- ⁴ Devizes Gazette 17 May 1917.
- ⁵ Agricultural Statistics 1914 Table 3.
- ⁶ Agricultural Statistics 1914 Tables 28, 29, 30, 37.
- ⁷ Agricultural Statistics 1914 Tables 12, 13.
- ⁸ P.E.Dewey British Agriculture in the First World War (Routledge, 1989), pp. 36,46.
- 9 Slocombe, First World War Tribunals p.22.
- ¹⁰ Swindon Advertiser 12 November 1915.
- ¹¹ Government circular to tribunals (R.117) *List of Certified Occupations* (1917) Appendix B.
- ¹² Slocombe, First World War Tribunals p.59.
- ¹³ I.M.Slocombe, 'Military Tribunals in Wiltshire 1915-1918', *The Local Historian*, Vol.30 no.2 (May 2000) p.110.
- ¹⁴ The Times 12 June 1918. Quoted in Pamela Horn Rural Life in England in the First World War (London, 1984).
- ¹⁵ Slocombe, First World War Tribunals, pp. 60-61.
- ¹⁶ Slocombe, First World War Tribunals, p.53.
- ¹⁷ For a fuller account of the release of children from school, see I.M.Slocombe, 'Education and the First WorldWar in Wiltshire' WANHM 90 (1997), pp. 126-129.
- ¹⁸ W.R.O. F1/100/23, Minutes, Wiltshire War Agricultural Committee 13 October 1916.
- ¹⁹ Minutes, Wiltshire War Agricultural Committee.
- ²⁰ W.R.O. 982/24, Diary of Edith Olivier.
- ²¹ Devizes Gazette, 20 July 1916.
- ²² W.R.O. 982/24, Diary of Edith Olivier.
- ²³ Swindon Advertiser 23 November 1917.
- ²⁴ Devizes Gazette 20 September 1917.
- ²⁵ Devizes Gazette 20 July 1916.
- ²⁶ W.R.O. 853/1, A.G.Stratton, Summary Receipts and Farm Accounts.
- ²⁷ Salisbury Journal 12 August 1916.
- ²⁸ Salisbury Journal 22 June 1918.
- ²⁹ W.R.O. F1/100/24, Minutes, Wiltshire Agricultural Executive Committee.
- ³⁰ Salisbury Journal 24 August 1918.
- ³¹ T.S.Crawford Wiltshire and the Great War: Training

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the Empire's Soldiers (DPF Publishing 1999)

- ³² Devizes Gazette 26 November 1914, 6 May 1915.
- ³³ Devizes Gazette 31 July 1915.
- ³⁴ Slocombe, First World War Tribunals, pp. 160-161.
- ³⁵ Salisbury Journal 10 November 1917.
- ³⁶ Salisbury Journal 23 March 1918.
- ³⁷ Salisbury Journal 2 October 1915.
- ³⁸ Minutes, Wiltshire Agricultural Executive Committee.
- ³⁹ Swindon Advertiser 29 June 1917.
- ⁴⁰ Salisbury Journal 16 June 1917.
- ⁴¹ Swindon Advertiser 29 June 1917.
- ⁴² Minutes, Wiltshire Agricultural Executive Committee, 6 March 1918, 3 April 1918.
- ⁴³ Minutes, Wiltshire Agricultural Executive Committee, 13 November 1918.
- 44 Salisbury Journal 2 November 1918.
- ⁴⁵ Minutes, Wiltshire Agricultural Executive Committee, 13 March 1918.
- ⁴⁶ Devizes Gazette 24 January 1918.
- ⁴⁷ Minutes, Wiltshire Agricultural Executive Committee, 3 April 1918, 10 April 1918, 25 June 1919.
- ⁴⁸ Devizes Gazette 6 September 1917.
- ⁴⁹ Swindon Advertiser 21 February 1919.
- ⁵⁰ Agricultural Statistics, Parliamentary Papers.
- ⁵¹W.R.O. 853/41, A.G.Stratton, Farm contract accounts.
- ⁵² Minutes, Wiltshire Agricultural Executive Committee 9 January 1918.
- ⁵³ Devizes Gazette 16 September 1915.
- ⁵⁴ Slocombe, First World War Tribunals p.146.
- ⁵⁵ Devizes Gazette 25 February 1915.

- ⁵⁶ Devizes Gazette 11 March 1915.
- ⁵⁷ Dewey op.cit. pp. 148-155.
- ⁵⁸ Devizes Gazette, 3 May 1917.
- ⁵⁹ Salisbury Journal 20 April 1918.
- 60 W.R.O. 853/1, A.G.Stratton, Farm Accounts.
- ⁶¹ W.R.O. 2640/1, Returns to Board of Agriculture
- 62 V.C.H. Wiltshire vol.15, p.75.
- ⁶³ For all statistics used in this section, see: Agricultural Statistics (Parliamentary Papers), 1915 vol.XLIX, 1916 vol. L, 1917 vol. LI, 1918 vol. LII, 1919 vol. LIII, 1920 vol. LIV.
- 64 Dewey op. cit. pp. 225-226.
- ⁶⁵ Food Controller's Orders, May 1917.
- ⁶⁰ Notes on the administration of the Group System issued by the Director General of Recruiting, December 1915.
- ⁶⁷ Salisbury Journal 22 December 1917.
- ⁶⁸ Swindon Advertiser 20 December 1918.
- ⁶⁹ Devizes Gazette 18 May 1916.
- ⁷⁰ Salisbury Journal 21 April 1917, 28 April 1917, 5 May 1917. Devizes Gazette, 15 March 1917, 12 April 1917.
- 71 Devizes Gazette 19 August 1916.
- ⁷² Pamela Horn, Rural Life in England in the First World War, p.198.
- ⁷³ Salisbury Journal 25 September 1915.
- 74 Devizes Gazette, 26 July 1917
- ⁷⁵ Pamela Horn, Rural Life in England in the First World War, p.199.
- ⁷⁶ Devizes Gazette 26 July 1917.
- 77 Swindon Advertiser 3 August 1917.

A Missing Drawing and an Overlooked Text: Silbury Hill Archive Finds by Brian Edwards

Response to the collapse in May 2000 of the vertical shaft mined into Silbury Hill at the behest of the Duke of Northumberland in 1776 has resulted in extensive documentary research being carried out. Amongst other material of interest, this research has brought to light a drawing, thought lost for seventy years, and a hitherto overlooked eye-witness account to the mining of the shaft.

A MISSING DRAWING

A section of Silbury Hill by William Collings Lukis, made on 6th August 1849 during the digging of a tunnel by the Archaeological Institute, was thought to be lost, having been missing since 1929. A postcard noting the loss was left on file in the then Lukis Museum, Guernsey, and now attached to one of W.C. Lukis' notebooks on 'Unchambered and Chambered Barrows' in the Guernsey Museums & Galleries, St. Peter Port. The postcard from V.C.C. Collum states that when she examined the book in 1929 a large number of pages were missing. The index to this archive indicates that notes relating to Silbury Hill are amongst the 59 missing pages, and feature more than once.

A copy of the Lukis drawing made by Canon Jackson in 1922 is in the Society's library at Devizes (DD14), but there was no certainty as to the accuracy of this copy, or that certain details had not been added or overlooked. Using a photograph of Jackson's copy and encouraged by the possible importance of the missing drawing, due to the urgent situation that has befallen Silbury, the Guernsey Museum continued to search and after many months of investigation had almost reached the end of the very large mass of Lukis material when a recheck of a French volume revealed the Silbury drawing among loose material in the back of the book. It is a watercolour sketch with pencil lines, 42cm wide and 25cm in depth (Figure 1). It remains in fair condition although there is an impression of a paperclip in a particularly inconvenient position. Horizontally extending into the body of Silbury from the southern slope of the hill, the mark left by the paperclip could be mistaken for another tunnel.

The Rev. W.C. Lukis is of course known for his recording of detail, and despite the related notes remaining missing, the drawing does not disappoint. The plan dissects Silbury on a south – north line, the road thus appearing on the extreme left of the drawing. Coloured areas are used to highlight differing layers of chalk and turf, with dotted lines deployed to signify hidden detail.

Lukis records that he visited the site with Dr Mereweather [*sic*] Dean of Hereford on the 6th August 1849, and that the tunnel had reached 88 yards in length. Above the tunnel and coloured sections Lukis has drawn a dotted line in the shape of an inner mound, outlining what he suggests as the 'probable site of deposit'. This 'probability' may have been suggested to the visitors by Merewether, for on the day Lukis visited Merewether recorded the workmen reporting that from 72 yards onward the roof of the tunnel had sounded very hollow.

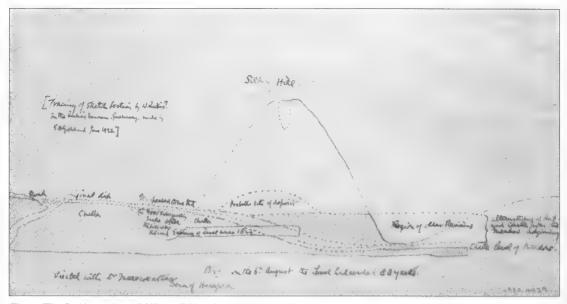


Fig. 1. The Lukis section of Silbury Hill, 6th August 1849 (Guernsey Museum)

According to Merewether (1851) 'it was impossible not to be impressed with the idea that there must be a cavity above'. Merewether went on to state that this phenomenon was later investigated, but nothing was found. This detail may have been recorded by Lukis in the missing notes, but it seems more likely that as a visitor Lukis had left the site before the absence of this deposit was discovered. The drawing was perhaps then left in Guernsey, when Lukis returned to Wiltshire to take up his post as vicar of Great Bedwyn.

Of topical interest is a dotted line Lukis had drawn in the top of Silbury, indicating that the entrance to the 1776 shaft was open in 1849 to a depth equivalent in scale to that which opened up in May 2000. The suggestion of the entrance to the shaft remaining open at this time is reinforced by an anonymous late 19th century drawing showing what appears to be an open hole adjacent to a large spoil heap (Figure 2). According to Merewether, mounds of spoil still remained on top of the hill in 1849 that the miners of the 1776-7 shaft had not bothered to throw back in. The view of Silbury included by Sir Richard Colt Hoare in Ancient Wiltshire also shows a large spoil heap atop the hill, although it could represent an abandoned smaller excavation (Figure 3).

Added to air photographs taken throughout the 1930s by Major Allen, and now in a collection in the Ashmolean Museum (Figure 4), the dotted line adjoining the summit in the Lukis drawing indicates that the 'hole' in the top of Silbury has remained present to varying levels since 1777, and was finally filled-in to near surface level in 1936. This material subsequently began to disappear, and in 1963 Silbury was capped with chicken wire to prevent what was thought of as rabbit damage. Ironically it was this wire, which it seems was topped with soil and reseeded, that prevented electrical surveys by

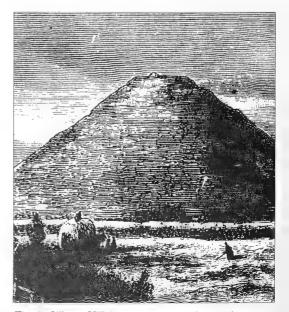


Fig. 2. Silbury Hill in an anonymous late 19th century drawing, showing spoil heap on the summit



Fig. 3. Silbury Hill, from Sir Richard Colt Hoare's Ancient Wiltshire (1821)

Atkinson's team that may have indicated the problem was not due to rabbits. The capping that covered the hole has now disappeared from view, possibly due to a migrating collapse above the Archaeological Institute tunnel that had broken into the 1776 shaft at the level Lukis recorded it being in 1849.

AN OVERLOOKED TEXT

Henry Browne, who produced and sold guides and archaeological models as the first 'official' custodian of Stonehenge, relates a hitherto overlooked eyewitness account of the 1776 dig in *An Illustration* of Stonehenge and Abury, published in 1823:

In reference to this hill, the work I apprehend of the builder of the Serpent and Temple, I will now relate an interesting fact, communicated to me by a gentleman of Abury, a Mr Hickley, if I am right in the recollection of his name. This elderly gentleman, when a youth, was at Silbury Hill on the occasion of some miners sinking a large hole or well down the centre of it to the ground on which it began to be raised. In doing this they found a piece of timber* continued down the whole way, evidently for a centre from whence to take the measurement of the hill in working it upwards.

* It is the property of almost all things buried in chalk and retired from the operation of the air, to be very little subject to decay.

The validity of this eye-witness account as reliable is suggested by the mention of neither treasure nor skeletons. Dean Merewether recorded in the Archaeological Institute report that when interviewing two men in 1849, who claimed to have intimate knowledge of the 1776 dig, he doubted their suggestion that 'a man' (skeleton) had been found on the basis the men had reported 'what they deem likely than the positive fact'.

Unlike a skeleton, a central top to bottom timber core is not something to be dreamed up as 'likely'. A central timber top to bottom deposit was not made clear by James Douglas in his Nenia Britannica of 1793, the only account published prior to the interview with Henry Browne. Nor was it further discussed until the Rev. Duke published The Druidical Temples of Wiltshire in 1846, although he interestingly 'had no doubt' that the slip of oak reported found in 1777 'was the ultimate remains

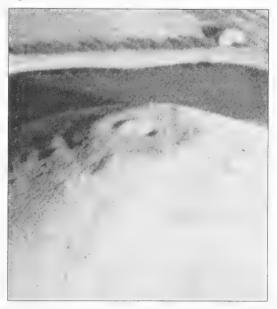


Fig. 4. 1933 Detail of aerial photograph by Major Allen showing the 'hole' and adjacent spoil (Ashmolean Museum)

of an upright log, placed as a centre, around which this aspiring mound was raised'. The testimony of 'Mr Hickley' also offers a new interpretation of the reaction of the Duke of Northumberland's foreman, Colonel Drax, to James Douglas demonstrating that the only find of 1777 was a slip of timber and not whalebone as had been thought (Douglas 1793, 161).

Upon this demonstration Douglas records that Drax 'had a fancy that this hill had been raised over a Druid oak, and he thought the remains of it were discovered in the excavation' (Douglas 1793, 161). This could be interpreted as Drax construing the timber found at the base of the shaft to be the remains of a tree, but this could also be taken as an indication of Drax believing a timber core to be something more than a constructional detail.

Whether the Rev. Duke had read Henry Browne's booklet we cannot be sure, but in the light of Mr Hickley's account further attention is required of Duke's opinion that 'A slip of oak is produced, which, I have no doubt, was the ultimate remains of an upright log, placed as a centre, around which this aspiring mound was raised... the remains of wood in barrows, and that heart of oak, immured in chalk, is almost imperishable. Yet here, I believe it to have been the remains of one entire log' (Duke 1846, 41-2).

Richard Atkinson, leader of the BBC dig into Silbury Hill during the late 1960s, expressed on numerous occasions the opinion that the 1776-7 shaft probably destroyed a central deposit at the base of the mound (Atkinson 1967, 1974, 1978). This may also have been the fate of any material that stood vertically at the core, as any surviving evidence is now perhaps residing in spoil distributed on the slopes or returned as infill, although the possibility remains that traces may perhaps still be found on the faces of the shaft.

Further details of Silbury since 1776 may still come to light from the notes and sketches of enthusiasts such as Henry Browne. Stuart Piggott referred to some drawings made by Henry Browne now held in Haslemere Museum (Piggott 1946, 470), that have yet to be investigated. The museum has no record of anything by Browne, and there is no connection with Wiltshire evident in their catalogue other than two early guides to Avebury. A physical search of their art collection was not possible in 2001 due to extensive building work.

ACKNOWLEDGEMENT

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The Life and Turbulent Times of Sir Roger Tocotes, 1430? – 1492, Sheriff of Wiltshire and Royal Servant: a Fifteenth-Century Survivor by Raymond J Skinner

Sir Roger Tocotes survived unscathed throughout that period of unrest and lawlessness which pervaded the second half of the fifteenth century. His story is an ever-present thread in a tapestry that embraces many of the principal characters involved in the county of Wiltshire, and countrywide, who were in the forefront of affairs during the reigns of Edward IV, Richard III, and Henry VII. To survive as a royal servant during these times required an uncommon perspicacity and ingenuity, together with a large measure of good fortune. As three times Sheriff of Wiltshire, Comptroller of the Households to two such disparate figures as George, Duke of Clarence and Henry VII, he must have been not only an able administrator, but also a discreetly pragmatic character. Born into a Lancastrian/ Neville affinity, he yet achieved important office under the Yorkist king, Edward IV, survived the troublous times of Richard III, and ended his career with high office under the first Tudor monarch.

With average expectancy a medieval lifespan might have encompassed that period of unrest and dynastic lawlessness which is usually known today as the Wars of the Roses; there were, however, many during this period whose natural span was shortened or brought to abrupt end by death in battle, by execution, or otherwise ruined through imprisonment or attainder and confiscation of their goods and estates. From the events leading up to the first battle of St Albans in 1455, to the final spasm of the wars in 1497 – the defeat of Pretender Perkin Warbeck at Blackheath - it was an exceedingly fortunate or clever individual who managed to preserve his life, property and status during this period of disintegration in the rule of law. The second half of the fifteenth century witnessed, in England, the death of three kings one in battle, one murdered in the Tower of London, and one prematurely. In addition, three princes of the blood royal suffered similar fates, and numerous figures from the top echelons of the peerage, including dukes, a marquis, and earls perished in

battle or afterwards by the axe. Such a catalogue takes no account of the many members of the minor aristocracy and gentry who also succumbed, for this was a conflict where the common soldier perhaps stood a greater chance of survival than his leader.

Fortunate, then, the man who managed to negotiate this minefield unscathed, and emerged to die peacefully in his bed. Such an individual was Sir Roger Tocotes of Bromham, near Devizes, whose ancestors - a northern family - derived their name from the township of Tockets in the parish of Guisborough, North Yorkshire. Tocotes first appears in Wiltshire at about the time when open war flared up between the Lancastrian supporters of Henry VI and his queen, Margaret, and the rival claimants to the throne, the Yorkist/ Neville party. Near this time Tocotes, a comparatively penniless suitor, in time-honoured fashion married a rich widow, the Lady Elizabeth, daughter of Gerald Braybrooke, who had become the heiress to the Barony of St Amand as the widow of Sir William Beauchamp in 1457. Tocotes gained the manor of Roche in Bromham in right of his wife, and this became the centre of his power in the ensuing years.¹

Tocotes was first appointed Sheriff of Wiltshire in 1464, when the new king Edward IV was establishing Yorkist ascendancy after the heavy Lancastrian defeat at Towton.² Earlier of Lancastrian leanings, Tocotes seems to have changed allegiance after his marriage and to have allied himself with George, duke of Clarence, the king's malcontent and fickle brother. When Clarence took the part of Richard Neville, the 'Kingmaker' earl of Warwick, in the latter's rebellion against Edward IV, Tocotes became involved in the rapid shifts of fortune which beset both sides in the years 1469-71, and was indicted for treason with his master, Clarence.

Warwick and Clarence first forced Edward IV to flee to Bruges with his loyal brother, Richard of Gloucester, but when the king was able to return later at the head of a small force 'false, fleeting Clarence' changed sides again. The resulting battle at Barnet saw Warwick's defeat and death and the fall of the house of Neville. These events presaged Margaret of Anjou's landing near Weymouth with her army, and the resulting watershed battle at Tewkesbury in May 1471. Here Edward IV was once again victorious, destroying in the process the Lancastrian army, together with their heir to Henry VI's throne, Prince Edward, killed either in the battle or shortly afterwards. This was followed by the probable murder of the poor semi-mad Henry VI in the Tower of London - the Lancastrian party as a potent force had now ceased to exist. Tocotes was pardoned and fought as a knight banneret at Tewkesbury, with Clarence, and was rewarded by the grant of two manors in Staffordshire.³ Before the battle he had been one of the commissioners of array to raise forces in Wiltshire, together with Sir William Stourton, Sir George Darell and Sir Laurence Raynsford.⁴ The year 1471 was also the second occasion of Tocotes' tenure as sheriff of Wiltshire. In successive following years he was again named as a commissioner, in August 1473 for over and terminer, with John Cheney of Falstone, who, like Tocotes, was later to rebel against Richard III at the time of Buckingham's rebellion ten years later.5 Throughout the 1470s Tocotes was very actively involved in the administration of his adopted county.6 Under Clarence he served as a commissioner of enquiry into alienations in mortmain, and was granted Devizes castle by the Crown.7

Perhaps his most significant appointment, however, in these years was to the Duke of Clarence's Council in 1475, when he became comptroller of the duke's household – an office which was to have far-reaching repercussions in Tocotes' life.⁸ Clarence, always restless and greedy to increase his power and possessions, had, on the premature death of his duchess, Isabel, in December 1476, or possibly even before, determined to marry Mary, the rich daughter and heiress to the Duke of Burgundy. This was an alliance which would have made Clarence even more powerful than his brother, the king, and was not a scheme which Edward IV would have either approved or sanctioned.

Tocotes, in charge of the duke's household, now became involved in the notorious case of Ankarette Twynyho, a widow who had been an intimate servant to the duchess. The latter's death, probably as a result of long-standing tuberculosis, was however blamed by Clarence upon 'a venomous drink of ale mixed with poison', which was said to have been administered by Ankarette and her accomplice, John Thuresby. Surprisingly, the indictment which lists these supposed crimes also named Roger Tocotes as 'abetting' in the affair.9 The poison was evidently a slow-acting draught, for the duchess had sickened in October, but did not die until shortly before Christmas! A further time elapsed until April of the following year when the duke sent his man Richard Hyde 'accompanied with divers riotous and misgoverned persons in manner of war and insurrection' to seize the innocent Ankarette. They arrived at Lower Keyford near Frome, where the lady lived, and without any legal authority broke and entered her house 'with great fury and woodenesse', carrying her off to Bath en route to Warwick where the duke resided. The unfortunate lady was imprisoned until the next morning when she was then brought up before the justices at the Guildhall and charged with poisoning. She vehemently protested her innocence, but a jury suborned, or under Clarence's compulsion, condemned her. She was sentenced, drawn to the gallows, and hanged all within three hours, such being the contempt for normal legality engendered by the contemporary general lawlessness. Some of the jury asked for her forgiveness, declaring that they had given their verdict under compulsion and fearing for their lives.

Tocotes was able to refute the charge against him and prove his innocence. Clarence had seemingly decided that his comptroller was expendable, but it proved a more difficult matter to make such a charge stick against a man of Tocotes' standing. It may also have been that he had the backing of the Beauchamp bishop of Salisbury and possibly that of the king himself. Edward IV, in any case, was incensed against his brother, Clarence, for the latter's abrogation and perversion of the king's justice in such a highhanded way, and perhaps intervened on Tocotes' behalf. On this occasion Clarence had tried his brother's patience once too often.

Edward IV had never completely trusted his brother after the troubles of 1469-70, and the Twynyho episode, together with Clarence's proposed alliance with Mary of Burgundy and his constant plotting, led to his attainder on the charge of high treason for which, after much soul-searching by the king, he was privately executed in the Tower. By what method, however, is not known. Neither are Clarence's reasons known for having Tocotes indicted, for he seems always to have been a loval supporter of the duke, even to the extent of risking a charge of treason by supporting Clarence and Warwick during their insurrection in 1469. Apparently Tocotes suffered the penalty of happening to be in charge of Clarence's household when the alleged poisoning took place, but the ensuing trumped-up charges merely underlined the duke's willingness to sacrifice any individual to the maw of his ambition.

When Edward IV, not yet 41 years of age, died unexpectedly in April 1483, the whole court and country were thrown into a state of flux. The young heirs to the throne were in the care of their uncle, Anthony Woodville, earl Rivers, but Richard of Gloucester, the king's brother, had been appointed Protector by Edward's will. Gloucester had to act swiftly to secure the persons of the princes, and he subsequently seems to have been persuaded that he himself should make a bid for the crown. There was, anyway, a general fear that another minority rule would cause the same problems as had occurred during the early years of Henry VI about sixty years before: 'Woe to the land whose ruler is a child'. This fear seems to have been the explanation why Richard of Gloucester's sudden usurpation of the throne was at first accepted without too much demur - apart, that is, from the Woodville family, who saw their influence on future events, and their status, in much jeopardy.

Richard III was crowned king in a magnificent coronation on 6 July 1483. The most gorgeous crowning ceremony which had ever been witnessed, it was attended by almost the entire peerage of England, Richard III had ample cause for thinking that his realm had accepted him with good heart, but it was less than two weeks later that four Londoners - Robert Busse, a serieant, William Davy, a pardoner of Hounslow, John Smith, a groom of the stirrup to Edward IV, and Stephen Ireland, wardrober of the Tower - were executed for their part in a plot to free the princes from their prison. These four conspirators were probably 'the certain personnes . . . as of late had taken upon theym the fact of an entreprise', as Richard's letter to his chancellor stated. The four were, however, comparatively unimportant figures in the plot. Rather was it the influential men behind them, and here can be seen the Wiltshire involvement, for John Cheyney, master of the horse under Edward IV, was the aforesaid Smith's head of department.¹⁰ He lost his post under Richard III and was henceforth treated with great suspicion. Chevney's friends and neighbours in Wiltshire, Sir Roger Tocotes, Richard Beauchamp Lord St. Amand, and Walter Hungerford of Heytesbury at first continued in favour with the king, but were soon to rebel in the autumn.¹¹

Richard III made no attempt to produce the persons of the heirs to the throne, and this led to unrest and proliferations of ugly rumours regarding their fate, and eventually to a full-scale rebellion in October 1483. It became apparent that there were four main centres of revolt, but the principal ones were in Wiltshire and the West Country centred on Exeter. In Wiltshire alone about 33 of the nobility and gentry were involved.12 In addition to those mentioned above, other notables were Humphrey Cheney and William Bampton of Falstone, Robert Cheyney of Wodehay, Thomas and John Milborne of Laverstock, William Hall and Michael Skilling of New Salisbury, William Basket of Lydiard Millicent, and others. These were all attainted, forfeiting their possessions in the Parliament called three months later. The rebellion failed, however. Buckingham, its titular head, was captured and summarily executed in Salisbury market place - no coincidence this, for Richard III was desperate to stamp his authority on the county. Buckingham's execution was intended as a dire warning against further insurrection. As has been observed:

the involvement (in the rebellion) of men whose loyalty Richard had taken for granted was a profound shock, and there is a distinct note of hysteria in the royal order that the land and goods of all household men and gentry in Wiltshire and Hampshire should be seized.¹³

More fortunate than the Duke of Buckingham and the notorious William Colyngbourne were several of the other principal figures concerned in this rebellion. Men like Richard Beauchamp Lord St. Amand, Thomas West Lord de la Warre, Sir Robert Willoughby and John Cheyney and his two brothers are known to have escaped to Brittany to take refuge with Henry Tudor, the last hope of the Lancastrian cause. Roger Tocotes was probably also of their party, although he is not specifically mentioned in the group of such refugees from Richard III. There were also many other important escapees from the West Country, including Thomas Grey marquis of Dorset, Peter Courtenay bishop of Exeter, and Giles Daubeney, later said to have fought with exceptional valour at Bosworth. The absence of such figures denuded the area of those who would normally have filled positions of power and influence in the southern counties, and the king was consequently forced to import men from his northern affinity to fill the vacancies in order to reassert royal power and control. These, of course, were unpopular measures creating a vicious circle, and exacerbating the hostility and suspicion with which he was regarded by southerners; it also provided further ammunition for those who wished to destabilize his regime.

Richard III, now critically short of able men, had to reimpose control almost from scratch after the rebellion. Five outsiders were given places on the commission of peace as a direct result of royal initiative in Hampshire, which had been linked with Wiltshire as the county where Richard III was least confident of the local gentry. Henry Braythwaite, for example, a northern yeoman of the crown, was made customer of Southampton; he was a predecessor of Thomas Woodshawe in this post - a man about whom more will follow later in this paper. As for Roger Tocotes - relieved of his positions after the rebellion, his place was taken by Thomas Stafford, younger brother of Humphrey Stafford of Grafton. Stafford also received a lion's share of Tocotes' lands in Wiltshire within a month of the rebellion, being then described as 'of Bromham', Tocotes' home. Stafford followed this with an impressive collection of local offices, largely those forfeited by Tocotes, but with one or two extras from elsewhere, including Colyngbourne's parkership of Ludgershall.14

From Wiltshire, of course, came the most notorious of the rebels, William Colyngbourne of Lydiard, who was responsible for the seditious rhymes which, with other traitorous symbols, were prevalent at the time. In July 1484 he pinned his scurrilous verse to the door of St Paul's, which read:

The crock-back'd boar the way hath found To root out our roses from the ground; But flower and bud will he confound, Till King of Beasts the swine be crown'd, And then the dog, the cat, the rat, Shall in his trough feed, and be fat, The Cat, the Rat, and Lovell our dog Rule all England under an Hog.¹⁵

Apart from the king and the assumed fate of the princes, this mocking doggerel alluded to William Catesby, Sir Richard Ratcliffe and Francis, viscount Lovell, Richard's closest councillors, while the epithet applied to Lovell referred to his heraldic crest which featured a silver hound. It seems likely that Colyngbourne had experienced some unpleasant evidence of Lovell's growing power as the king's friend, for the Lovells held the manor of Elcombe and Uffcott, which bordered some of Colyngbourne's own lands at Quidhampton and Shawe. It was not only, or even principally for his rhyme, that Colyngbourne suffered his painful death, for he had been more seriously involved with John Turbyvyle, a Dorset shipowner, in a plot to encourage Henry Tudor, the Lancastrian claimant to the throne, to invade England.16

A noteworthy example of a member of the Wiltshire gentry who lost status and possessions, if not his life, under Richard III exists in the case of the Thomas Woodshawe mentioned above. He had acquired the manor of Standlynch, near Downton, in right of his wife, who before her marriage was Grace Hugyns, a member of a well known Somerset family.17 The small manor was held under Richard Beauchamp Lord St Amand, and when he was forced to flee after the rebellion, the king appropriated Standlynch and gave it to Nicholas Rigby a supporter, then of Bruton.¹⁸ This situation, which was replicated in many parts of Wiltshire and the West, seems the primary and more telling reason for the strong support of Henry Tudor at the ensuing battle of Bosworth. There, a measure of Henry Tudor's backing would be drawn not only from disaffected Yorkists, but also from Lancastrian supporters in Wiltshire and the surrounding counties - a remnant of those who had borne the brunt of the devastating defeat at Tewkesbury fourteen years before.19 At Bosworth revenge would be very much in the air. Tudor support was probably due less to any moral indignation regarding the supposed fate of the princes, than to the more

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homely and pressing concerns about a restitution of status and personal fortunes appropriated by Richard III in the aftermath of the 1483 rebellion.

An indication of the widespread feeling in the county may be seen in the following extract from unpublished notes on the parish of Berwick St John, collected during the 1920s. Of Berwick Farm it was observed:

An interesting relic left by a 15th-century tenant was found in the Manor garden a few years ago. What appeared to be a tarnished silver coin, about as large as a sixpence, was dug up. On being cleaned it was found to be of latten plated with silver leaf. It was sent to the British Museum for verification and the verdict was that the object was not a medieval coin but a jeton or teston, that is a counter used in calculating accounts, or as a marker for games of cards. The reverse was copied from a floral design borne on many of the groats of Edward II and III, the obverse bore an abbreviated legend of 'Henry VII, King of England, France and Ireland'. But instead of the usual design on groats, a large boar appeared with the superscription engaged in trampling a royal crown.

From below the boar's paunch a little crowned king was emerging and lifting the boar off the large crown. Significance: Henry VII was wresting the crown from Richard III, whose badge was the white boar... the owner of Berwick Manor under the abbess of Wilton was a strong Lancastrian, and an intimate friend of Robert Willoughby (later Lord Willoughby de Broke). Did the jeton come from one or the other?²⁰

The verdict of Bosworth in August 1485 resulted in the death on the field of battle of Richard III and the nemesis of the House of York, chiefly because Richard's support among the peerage had shrunk to a dangerously low level. Further treachery and betrayal by the Stanleys and the Earl of Northumberland made his position untenable. What had started as a minor rebellion by the Wiltshire and southern gentry had spread like wildfire and ended in the complete collapse of Yorkist power which only a few years before had seemed so secure in the person of Edward IV.

It is perhaps poetic justice that the ultimate *coup de grace* at Bosworth was said to have been administered by a Wiltshireman who had lost his land and home to a supporter of Richard III, and had, like many others, made his way to Bosworth with vengeance in his heart. Sir Robert Willoughby, himself at Bosworth, was accompanied by one of his servants, a man-at-arms, Henry Ley, who asserted that:

he [Ley] was a man at Armes, on the part of the Earle against the Kinge, and was neere about the Earles person. At such time as the Kinge was slaine by one Thomas Woodshawe.²¹

Whoever killed Richard at Bosworth, and whether it was the act of a single person or the result of concerted action, it would be expected that those involved in removing a king considered by many to be a usurper, would receive some official recognition from a grateful Tudor. In Woodshawe's case this happened. Less than a month after the battle, in September 1485, he was rewarded with the post of bailiff and keeper of the park of Berkswell, Warwickshire, for life.22 The significance of this grant may be judged by the fact that it was one of the first rewards to a supporter at the outset of Henry VII's reign, sharing this primacy with members of the Savage family. Further recognition of Woodshawe was to ensue throughout the reign, with his eventual rise to become a gentleman usher to the king.23

There is an interesting document contained in the manuscripts of the Dean and Chapter of Wells Cathedral which shows that Roger Tocotes was associated with the eventual restitution of the manor and lands of Standlynch to Thomas Woodshawe after Bosworth. The manuscript itself is dated 1505, but refers back to a deed of forty years earlier (1465), which attempts to confirm possession of Standlynch to Henry and Elizabeth Hugyns, the parents of Woodshawe's wife, from whom it eventually passed to Thomas and Grace Woodshawe. In 1505 there appears to have been a lawsuit in progress in London, such litigation being an inevitable consequence of conflicting claims on the manor which arose after Bosworth and the change of government. During this lawsuit the original deed of 1465 was produced in which Roger Tocotes was mentioned as a lessee of the Standlynch lands from Richard Beauchamp, bishop of Salisbury.24

After Bosworth, Tocotes was restored to favour by Henry VII and immediately became sheriff of Wiltshire for the third time and knight of the body to the king. He also became comptroller of the household, this time to Henry Tudor himself. Now an elderly man by medieval standards, he continued to serve as a commissioner of array, as a crown steward, and was granted the constableship of Devizes Castle for life.²⁵ His thoughts would now inevitably have turned to making plans for the repose of his own soul and giving thanks for his fortuitous survival in such turbulent times. He consequently caused to be erected the fine Lady Chapel in Bromham church, and probably also that of St John's, Devizes - the parish church of his castle. He obtained licence to found a perpetual chantry in Bromham, the chaplain to celebrate divine service daily for himself and his wife as founders, for his wife's first husband, William Beauchamp Lord St Amand, and for his father and mother, James and Elizabeth Tocotes. Lands and annuities were to be granted for the maintenance of the chantry. But Sir Roger Tocotes did not live to see the completion of his foundation, for he died on 2 November 1492. A later licence was granted to Sir Richard Beauchamp Lord St Amand, his sonin-law, and Anne his wife, to assign to the chaplain property in the county to the annual value of $f_{.10.26}$

Even in the last few months of his life Tocotes was appointed an escheator for the counties of Bedford, Buckingham, Hertford and Huntingdon, but it is not known whether on this occasion he was able to carry out these duties, for his will is dated 2 September 1492.²⁸ In this he desired burial in 'the middle aisle of Our Lady's chapel at Bromham'. He died two months later and was buried in a tomb of Purbeck marble with his lifesized effigy, sculpted in alabaster and represented in contemporary armour, wearing the Lancastrian collar of S.S., from which is suspended a rose, his headpiece supported by two angels and at his feet a lion reguardant. Round the tomb were shields of arms which have now disappeared, together with only a part remaining of a brass inscription which, according to a note on the fly-leaf of the earliest parish register, once read [in translation]:

Here lyeth Roger Tocotes, knight, husband of Lady Elizabeth, Lady St Amand, and Knight of the Body of Henry the Seventh, King of England, and Comptroller of the Household. On whose soul may God have mercy. Amen.²⁹

Tocotes, then, had lived and largely prospered, through the reigns of three of this country's most memorable monarchs. First there was Edward IV, a charismatic and dominating figure, whose prowess on the battlefield was second to none. His forces never lost a battle in four of the fiercest engagements in the Roses conflict. Second his brother Richard III, whose short reign has stimulated more difference of opinion and fierce partisanship than perhaps any ruler before or since. On the one hand are those who view him as a much-maligned and misunderstood figure, while others see him as a medieval gangster whose life best became him in the leaving of it. Certainly his most enduring monument is his brave end on Bosworth field, 'fighting manfully in the thickest press of his enemies'. The manner of his exit has undoubtedly predisposed posterity to view him in a more sympathetic light, and left a potent memory for all who come after. Lastly Roger Tocotes lived into the reign of Henry VII, one of the most successful of medieval kings, who shrewdly and single-mindedly left his Exchequer with full coffers. He was fortunate in his able administrators and in many aspects pointed the way forward into the modern age. Tocotes, as a high official in his government, must be accorded his own measure of credit for this success.

Notes

- 1 VCH Wilts, 7, 103, manor of Shaw.
- Jackson, J E, 1857, 'Sheriffs of Wiltshire', WANHM 3, 189-235.
- Calendar of Patent Rolls (hereafter CPR), 1467-77, 346 (1 July 1472); see also WANHM 51, 1947, 265.
- 4 CPR 1467-77, 284; see also WANHM 3, 1857, 207 (26 April 1471).
- 5 Ibid. 408 (17 Sep 1473).
- 6 Ibid. 218: commission to John Roggers and Tocotes to seize all castles, lordships, manors, lands and possessions of George, duke of Clarence, 25 April 1470. Ibid. 247: commission to enquire into felonies, murders, etc. to Tocotes and others in Wiltshire, 27 Oct 1470. Ibid. 351: commission of array to Clarence, Gloucester, Tocotes and others in Wiltshire, 7 Mar 1472. Ibid. 406: commission to enquire, Tocotes and others, including William Colyngbourne, John Whittocksmede, Thomas Tropnell, John Hygons, John Heron, and sheriff of Wilts, etc, 18 Aug 1473. Ibid. 517: licence to George Duke of Clarence to enfeoff Roger Tocotes and others whilst the duke is away on the king's service, 1 May 1475. Ibid. 573: commission to the king's brothers to enquire into treasons, lollardries, heresies, etc in Dorset and Wiltshire, also names Tocotes and others, 7 Dec 1475. Ibid. 597: licence to Duke of Clarence, Tocotes, William Catesby and Thomas Bishop of Lincoln to found a fraternity in the church of St Mary, Asshewell [sic], Herts., 26 Aug 1476.
- 7 Ibid. 428: commission to Roger Tocotes, John Cheyney of Falstone, Henry Longe, John Whittocksmede and others re alienations in mortmain without licence, 7 Dec 1473; see also WANHM 11, 1865, 306.
- 8 WANHM 51, 1947, 265.
- 9 PRO Third report of the Deputy Keeper, app 2, 214: indictment against Ankarette Twynyho, Roger Tocotes

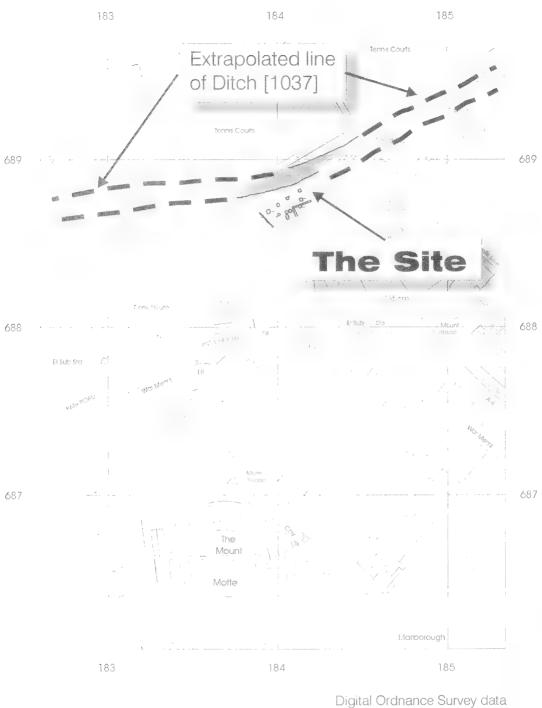
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esq, and John Thuresby for poisoning Isabell, duchess of Clarence, QS Warwicks, 17 Edw IV, 1477.

- 10 PRO C81/1392/1. See also Horrox, R, 1989, Richard III: a study in service.
- 11 Horrox, 1989, 155 cites PRO E207/21/16/12 regarding the file of returned writs carried by a servant of the sheriff of Cornwall, who was waylaid by Walter Hungerford and others at Warminster and had his documents stolen.
- 12 Rotuli Parliamentorum, 6, C3, 244-9 gives names of the rebels concerned in the 1483 rebellion at Newbury, Salisbury and Exeter.
- 13 Horrox, 1989, 181; see also *ibid*. 155: 'At the beginning of November... the king, then at Salisbury, issued commissions to seize the goods of armed rebels.'
- 14 Horrox, 1989, 193-5.
- 15 The whole verse, as given here, is in *Proc. Somerset* Arch. Soc., 7, 1856-7, 97.
- 16 Fabyan, R, 1811, The new chronicles of England and France, 672.
- VCH Wilts, 11, 69-70. See also Skinner, R J, 1993,
 'Thomas Woodshawe, "Grasious and Regicide", The Ricardian 9 (121).
- 18 VCH Wilts, 11, 69. See also BL Harl. MS. 433, f.138b, which records a 'Commission to Nicholas Rigby, steward of the monastery and bailiff of the towne of Bruton', 4 Jan 1484.
- 19 Waylen, J, 1839, *History of Devizes* . . ., 92: '... partisans of the exiled Queen Margaret (of Anjou) were particularly numerous in the West. Her last army, that namely which fought at Tewkesbury, was altogether gathered from this district.' Waylen also cites as authority John Britton: 'great numbers of the

people of Wiltshire were present at the battle of Tewskesbury and bore the brunt of that fateful day.'

- 20 WANHS Library, Box 17: unpublished notes on Berwick St John by W M Goodchild, rector, 1899-1929.
- 21 Skinner, 1993, 418.
- 22 *CPR* 1485-94, 4. Berkswell is in the Staffs./Warwicks. area where Woodshawe had earlier been domiciled.
- 23 Skinner, 1993, 420-1.
- 24 HMC Report 12 (Wells), pt 2, 189. Although dated Nov 1505 this is an extract from the chapter act book commencing Sept 1486.
- 25 Campbell, William (ed.) 1873, *Materials for a history* of the reign of Henry VII, pt. 1, 32: 'Grant, for life, to Roger Tocotes, kt., of the office of constable of the castle of Devizes, steward of the manors and lordship of Marleburgh, Devizes and Rowde, co. Wilts; steward of all possessions parcel of the earldoms of Warwick, Salisbury, or in anywise annexed to the said earldoms, in the co. of Wilts, and steward of the lordships and manors of Sudbury, Faireford, Whitington and Chelworth, co. Glouc, 22 Sept 1485.'
- 26 Kite, Edward, 1941, 'The two "Beauchamp" chapels in the churches of St John, Devizes, and St Nicholas, Bromham', WANHM 49, 283-7; Bradby, Edward, 1985, The book of Devizes, 32.
- 27 Calendar of Fine Rolls, 1485-1509, no. 444.
- 28 PRO PCC 20 Dogett, 2 Sept 1492, desires burial ' in the middle aisle of Our Lady's chapel at Bromham', and appoints as executors Master Walter Gudeby, Dr W Gudeby, William Gill, John Lambe and Robert Tocotes, with Lord St Amand and Richard Pudsey, his cousins, as overseers.
- 29 Kite, 1941, 285.



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A Possible Outer Bailey Ditch to Marlborough Castle: Excavations at Marlborough College Pool

by Michael Heaton¹ and Bill Moffat² with a contribution by Lorraine Mepham

A watching brief and limited archaeological investigation within Marlborough College precinct revealed a ditch, pits, a robber trench and other features, all datable to the 12th-14th centuries from ceramic evidence, primarily sherds of Kennet Valley coarsewares. The ditch was interpreted as defensive, perhaps that of a possible second bailey of Marlborough Castle. The pits were probably cess pits dug in the backland of a medieval burgage fronting the High Street. A preliminary evaluation had failed to identify stratified deposits.

INTRODUCTION

The authors were commissioned by Marlborough College to maintain a watching brief during groundworks arising from the construction of a new swimming pool on the northern edge of the college precincts, on the edge of the Kennet floodplain, centred on NGR: SU1840 6875 (Figure 1). The work was subsequent to an archaeological evaluation (Asi 1999) carried out in the winter of 1999 by the authors, which recovered large quantities of medieval pottery but failed to identify stratified deposits or features. Nonetheless, the County Archaeological Service recommended, on the basis of the artefactual data alone, that groundworks be observed. That decision was proved to be wholly justified.

At the time of the works, the site, which lay just above the terrace edge of the floodplain, comprised an expanse of level lawn within an area of heavily landscaped sports fields, bordered on its south and east sides by college buildings set into deep terraces. The work comprised supervision of topsoil stripping, observation and recording of deposits revealed, and limited archaeological investigations of selected deposits. The full planning report (ASI 3168) has been deposited with the SMR, and will also be posted at the authors' website: www.archaeology.demon.co.uk.

The known archaeological and historical development of Marlborough, though not yet fully understood, has been summarised by Haslam (1978) and is not repeated here. However, two related features of the town's historical morphology are pertinent to the present work: the proximity of the site to the motte and bailey of the Norman castle, generally accepted as being represented by the college Mound (cf. Creighton 2000, Field *et al.* 2001), and the alignment of Bridewell Street; and historical allusions to a second (outer) bailey added to the north-east side of the castle precincts but not represented topographically now (Bradley *et al.* 1923, Haslam 1978).

RESULTS

Stratigraphic data

Overburden and modern disturbances comprised localised topsoils, a concrete path, numerous high

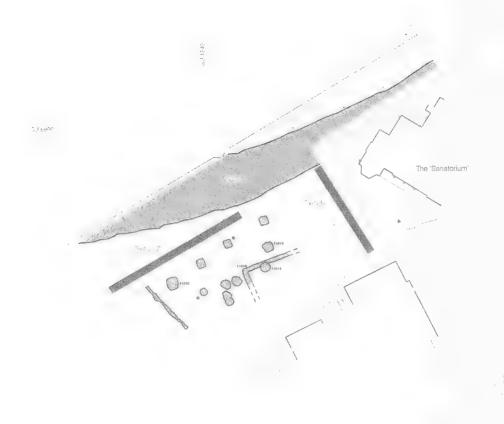


Fig. 2. Principal archaeological features and evaluation trenches showing ditches 1022 and 1023

voltage cables, and a heavily disturbed subsoil. Over much of the area the subsoil showed extensive modern and recent disturbance, particularly an extensive pattern of wheel-ruts, and contained modern materials throughout.

Archaeological deposits comprised a broad 'V'shaped ditch, 11 columnar pits, a robber trench, and isolated smaller linear features and postholes, from which a large assemblage of medieval pottery was recovered (Figure 2).

A broad 'V' -shaped ditch 1037, 7m wide and 4m deep, aligned WSW-ENE was revealed cutting across the northern corner of the site. It was filled with two groups of deposits: an upper group (1024 – 1035) of artefact-rich dumps heavily disturbed by two re-cuts, 1022 and 1023; sealing largely sterile primary fills 1036 (Figure 3). The re-cuts broadly followed the alignment of the main ditch, although 1022 diverged slightly from it running more to the SW.

South of the ditch were 11 similar pits, each roughly square and approximately two metres across. They were aligned in two groups: a line of four running SW-NE diverging away from ditch 1037, six metres at its closest point and fourteen metres at furthest remove; and a more loosely scattered group of seven south of that. Of the linear group, 1020 was investigated in detail. This was 1.40m deep and containing at its base deposits of dark artefact-rich loam (cf. 1004) from which medieval pottery was recovered, together with an iron buckle (SF1) and a piece of iron strapping (SF2). Of the southern group, two were investigated in detail, 1010 and 1012. Both were nearly four metres deep. 1010 contained deep layers of cess and silt (1003, 1006-1009) under a thick layer of backfill (1005), while 1012 contained only undifferentiated backfill (1011) (Figure 4).

South of the pit group, a square-profiled feature, 1014, was revealed, 0.90m wide and 1m deep,

describing the corner of a rectangular plan. Containing a single deposit of coarse flint rubble within a sticky chalky matrix, this feature is interpreted as a 'robbed-out' wall foundation.

The remaining features consisted of single postholes and smaller linear gullies. They formed no readily discernible pattern and, though planned and photographed, were not further investigated.

Artefactual data

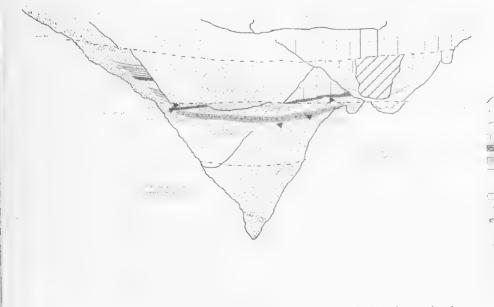
Mediaeval pottery was recovered from four deposits, 1001–1004, within the ditch and pit groups; together with a bone object (SF3), a knife handle, an iron buckle (SF2) and a piece of iron strapping (SF3) from the overburden layers. The latter, unstratified objects, are not further described but have been curated appropriately.

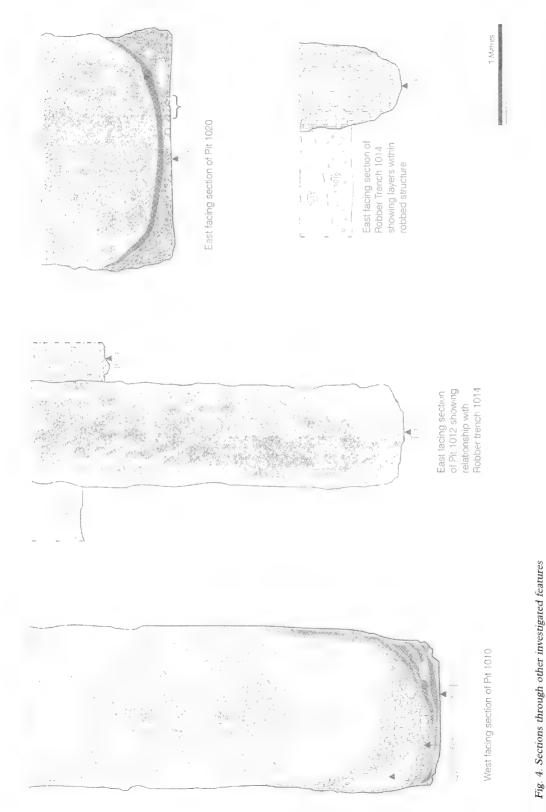
Pottery

A total of 85 sherds (2094g) from four separate contexts was examined. Apart from a single residual Romano-British sherd, and one post-medieval sherd (both from context 1000), all the pottery is medieval. Sherds from context 1000 are abraded, but the remainder are, on the whole, markedly unabraded, with crisp fractures and unworn surfaces.

The pottery has been quantified by fabric type within each context. All fabric types identified are known local and regional wares, and form an assemblage composed of locally produced coarsewares supplemented by finewares from different, more distant sources. The medieval assemblage has a potential date range of 12th to early 14th century, although the majority would fit with a more restricted date range of mid to late 13th century.

Three coarseware types were identified, two of which are likely to derive from a single source, almost certainly local. These are the 'Kennet Valley' wares, flint-tempered and chalk-tempered, first defined at Newbury in west Berkshire (Vince 1997, fabric groups A and B respectively) and subsequently renamed following the discovery of a production site outside Newbury (Mepham 2000). These two wares form part of a 'ware tradition' found along the Kennet Valley from Newbury to Devizes, and were probably produced at a number of different centres within this wide distribution area; one potential source has been identified on the basis of place-name evidence near Marlborough, in Savernake Forest (Vince 1997, 65). Only two rims are present here - one jar rim and one bowl rim. The tripod foot from context 1001 is not from a tripod pitcher (such vessels are not known in Kennet Valley wares) but probably from a cauldron (e.g. Mepham 2000, fig. 17, 52). Kennet Valley wares were long-lived (12th to 14th century), but the vessel forms seen here would fit with the date range of mid to late 13th century which is suggested by the finewares.





The third coarseware, represented by a single sherd, is a Laverstock type from the Salisbury area, again probably 13th century. This is also the source of the dominant fineware type, a fine whiteware found here in glazed jug forms, decorated with incised or red-slipped motifs. Comparable jugs were found during the excavation of the Laverstock kilns, which have an archaeomagnetic date of 1240-75 (Musty *et al.* 1969), although production here (or elsewhere in the immediate vicinity of Salisbury) is likely to have been longer-lived.

Two other glazed wares were identified. One is calcareous (tempered with oolitic limestone), of a type found in north Wiltshire, for example associated with the Minety production centre; two of the three sherds have combed decoration, which can be characteristic of 12th century tripod pitchers, although could equally well be later. The second type is sandy and is not particularly distinctive. Medium-grained sandy wares such as these are widespread across central southern England and, like the Kennet Valley wares, are likely to have several different sources – one known kiln source is at Ashampstead in west Berkshire (Mepham and Heaton 1995).

CONCLUSIONS

Archaeological Interpretation

Two broad groups of archaeological deposits have been revealed at this site: a broad ditch of defensive proportions, the upper backfills of which had been cut into by two smaller ditches containing 13th century pottery; and a group of pits and smaller features to the south of it, redolent of domestic functions, some of which contained 13th century pottery in their lower fills. Of these, the latter are more readily interpretable.

In form and fill characteristics, pits 1010 and 1020 are similar to features identified as cess pits at many urban archaeological sites. Pit 1012 is rather more enigmatic, being of similar form and dimensions to 1010, but having apparently been backfilled immediately after its excavation. Furthermore, their linear alignment follows the patterns identified at many urban sites, in which cess pits invariably indicate both the orientation and extent of individual *burgages* (cf. Schofield and Vince 1995), though the orientation of these features is contrary to that presumed on the basis of the present property layout in the town (cf. Haslam 1978, fig 11) in being at an angle of approximately 60 degrees to the High Street.

Feature 1014, being square in profile and plan form, containing flint rubble in a chalky matrix, is likely to have been a building foundation that has been robbed of its larger masonry units and mortar. Though undated, the absence of brick and the purity of its matrix suggests a medieval rather than or post-Medieval date, Roman whilst stratigraphically the deposits pre-date the southern pit group. The absence of domestic materials such as charcoal or animal bone from the immediate vicinity of the feature suggests a non-domestic function.

The other features, comprising isolated post holes and smaller linear gullies, are of a form and spatial density that might be anticipated on the margins of a medieval settlement, and potentially relate to a wide variety of domestic and other functions. Though undated here, there is no reason to preclude contemporaneity with the other medieval deposits on the site.

It would be reasonable to conclude, therefore, that the above represent the backland of a burgage fronting on to the southern end of the High Street, established during the 12th - 14th centuries and demarcated on its northern side by the pair of smaller ditches cutting into the upper backfills of ditch 1037. This much, at least, is unremarkable. Ditch 1037, however, is slightly more enigmatic. Material from the two upper 'recuts' indicates that 1037 had fallen out of use by the late 13th century and must therefore have been cut and initially silted at an earlier date. Its steep-sided 'V' -shaped profile, and considerable depth, are indicative of a defensive function, rather than a simple boundary or quarry. Though it is situated outside the accepted extent of the Norman castle earthworks (cf. Haslam 1978), the length observed within this site appears to be broadly concentric with the western end of Bridewell Street, an urban feature accepted as respecting the alignment of the castle defences. If we accept the assertion of Bradley et al. (1923) that a second bailey was added to the north-eastern edge of the Norman castle earthworks, and that the medieval name for St Peter parish was 'The Bailey ward' (Bradley et al. 1923), it is possible that 1037 represents the outer edge of the later bailey and that it is likely to extend as an archaeological feature across the southern end of the High Street, containing SS Peter and Paul. Its steep profile and lack of the broader base characteristic of Norman

defences allude to a relatively short duration as an open topographic feature, which possibly explains the historical ambiguity attached to the second bailey.

Methodology

The requirement for an archaeological watching brief during the major groundworks associated with this development project has been justified by the results obtained. In addition to recovering significant archaeological data pertaining to the development of the castle and the earlier medieval settlement, the disparity between the results of the evaluation and the subsequent watching brief remind us of the inherent fallibility of the techniques currently available for field evaluation. In this instance, relocation of the evaluation trenches to avoid known live services and active thoroughfares, inadvertently avoided significant archaeological deposits, the identification of which would have had a significant affect on determination of planning permission. A wider scatter of shorter trenches might have uncovered the larger archaeological features, but there remains even amongst the rich seam of archaeology exposed in the watching brief a great deal of blank ground into which shorter trenches could as easily have fitted. If there is a conclusion to be drawn, it is that consideration of archaeological evaluations should be based on artefactual as well as stratigraphic results irrespective of any apparent lack of relationship between the two data sets; the large unabraded pottery sherds recovered in the evaluation, though undoubtedly residual in the overburden layers, were correctly interpreted by

the County Archaeological Service as indicating proximate *in situ* deposits.

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Sawfly (Hymenoptera: Symphyta) recording in Wiltshire 1947-2000 by John Grearson

The characteristics of sawflies are described together with a brief account of their biology and the plants with which they are associated. A list is then provided of all the sawfly records entered on the database of the Biological Records Centre. These consist of records from Sir Christopher Andrewes, who collected in the Salisbury area between 1947 and 1978, and from the author and others throughout the county between 1980 and 2000. Comments on some of the rarer species follow.

INTRODUCTION

Sawflies have never been a popular group with entomologists and to the public they are largely unfamiliar. The reason is probably because many of the species are difficult to identify and the literature is unhelpful. I have included, therefore, a descriptive section intended to assist readers to recognise sawflies, some of which may be encountered frequently as garden pests. Notwithstanding their anti-social habits, many of the adults are quite striking in appearance and well worth a second glance.

The primary purpose of this paper is to consider the records held on the Wiltshire sawfly database at





the end of the twentieth century. Because very few observers have been involved, the total is only 961 records, of which more than half date from after 1997. In spite of this low number, 219 of the 501 species on the British List are represented. Records published in the *Report of the Marlborough College Natural History Society* between 1900 and 1934, which will be added to the database in the future, may help to swell further the number of species found in the county before 2000.

SAWFLY DESCRIPTION

The Symphyta form a sub-order of the insect order Hymenoptera, which also includes bees, wasps and ants. In common with most hymenopterans sawflies have two pairs of wings but can be distinguished by the lack of a narrow constriction between the thorax and the abdomen. Female sawflies are responsible for the common name of the group because most possess saws as part of their genitalia which they use to cut into plant tissue in order to deposit their eggs. An exception to this are the 'wood wasps' of the family Siricidae which have a needlelike ovipositor used to penetrate the bark of trees so that eggs can be laid in the softer sapwood. All adult sawflies, with the exception of those in the family Cephidae, possess a pair of small

10 Eastfield, Ashton Keynes, Swindon SN6 6PR. [author is the Wiltshire county sawfly recorder]

protruberances near the apex of the thorax known as cenchri. The cenchri contact a rough area on the underside of the forewings when the insect is at rest, holding the wings in place. The Cephidae or stem-sawflies are proportionately more slender insects without cenchri but the abdomen is still joined to the thorax without a narrow constriction. All of these characters can be seen in Fig.1 which illustrates a pinned female Tenthredo thompsoni. Some species of sawflies are as small as 4mm in length whilst the largest can be up to 40mm. There is much variation in the shape, proportions and colour. Black, yellow, green and red in various combinations are all quite common. Many adult sawflies visit flowers where they feed on pollen, nectar or parts of the flowers. Others are carnivorous and catch insects including other sawflies in their powerful jaws. Sawflies cannot sting but the larger species are capable of inflicting a bite when handled.

The larvae of all the British sawflies feed on plant material including horsetails, ferns, grasses, sedges, herbaceous plants and many trees. Feeding mostly takes place in the open on leaves but some groups feed in other ways such as leaf mining, leaf rolling or even by inducing gall formation. The woodfeeding activities of the Siricidae have already been mentioned and another group of species have larvae which feed within the stems of plants. The larvae of the species which feed in the open are seen most commonly. Some of these feed singly and usually have cryptic coloration whilst others feed gregariously. This latter type are often brightly coloured with striking markings and when disturbed assume an alarm posture by lifting their tails to form a rigid 's'-shape. There is some evidence that some species may also employ chemical defence substances. Individual species of sawflies are usually very specific in their choice of host plant which is an important aid to identification. The grey larvae with black heads found on cultivated and wild Solomon's Seal, for example, are always of the species Phymatocera aterrima.

The larvae of species feeding on leaves all have three pairs of thoracic legs, like caterpillars of Lepidoptera. They can be separated from that group immediately, however, by the larger number of abdominal pro-legs, usually six or seven pairs, whereas lepidopteran caterpillars never have more than five pairs. The larvae of sawflies which feed in stems or in wood do not have well developed prolegs like the external feeders, but these larvae are seldom seen.



Fig.2. Adult female Arge pagana ovipositing in a stem of cultivated Rosa

Fig.2 shows a female Arge pagana ovipositing in a stem of cultivated Rosa, and a group of the gregarious larvae of this species is shown in Fig.3. The eggs of most species hatch within a few days and the larvae then commence to feed. The newlyhatched larvae of some species feed within the cavity created by the saw of the female for several days before eating their way to the external surface of the leaf. There is considerable variation in the length of time spent in the larval stage. Many species have just a single generation in a year and others several generations. Any larva alive at the end of the summer spends the winter as a pre-pupa either in a cocoon or in the litter beneath the food-plant. The pre-pupa looks like a frozen waxy form of the larva and this winter suspension of activity is known as

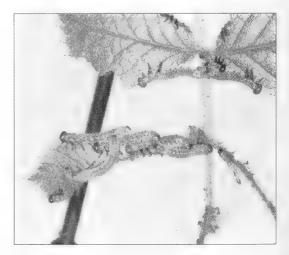


Fig.3. Group of larvae of Arge pagana

diapause. In the spring the pre-pupa casts its skin and metamorphoses into a pupa. This has external antennae and legs and often moves. It is frequently pale in colour but darkens prior to the emergence of the adult which usually takes place within a few days. In the case of the multi-brooded species, which are usually small, the whole cycle takes takes place in a matter of a few weeks. As a general rule the smaller the species the quicker metamorphosis occurs. This is, of course, only a generalised description of the early stages, many species exhibit individual variations which are dependent on a variety of factors.

WILTSHIRE SAWFLY RECORDS

In the list that follows species names are taken from A Working Checklist of the British Symphyta (November 2000) compiled by Dr D.A.Sheppard of English Nature who is one of the leading authorities on the group. The National Statuses indicated are taken from English Nature's environmental recording software package Recorder 2000, but it should be noted that no review has taken place since the late 1980s, and even at that time many species of sawflies were listed as "Unknown".

The Records column shows two figures separated by a plus sign. The first figure is the number of records made by Sir Christopher Andrewes (1896-1988) between approximately 1947 and 1978. Sir Christopher, who was one of the discoverers of the influenza virus and Director of the Common Cold Research Unit, was also an eminent entomologist and lodged 395 records of 200 species of Wiltshire sawflies mostly from the Salisbury district near his home. His main interests were in Diptera and Hemiptera, and only to a lesser degree in Hymenoptera , which explains the small number of records. The bulk of his collections, which amounted to more than 18,000 insects, were acquired by the British Museum (Natural History) with the residue being distributed between several provincial collections. No attempt has been made to validate Sir Christopher's determinations.

The second figure in the Records column is for the records from 1980 onwards of which there are 566. During this period occasional visits were made to Wiltshire by professional entomologists and in 1998 the author and several others observers began to record sawflies more widely across the county. All recent records have been either referred to experts for determination or compared with reference specimens.

The final column indicates distribution according to 10Km squares of the National Grid. A map of the Wiltshire 10km squares is included below (Fig.4) to assist in interpretation.

ST79	ST89	ST/99	2005	SUTT	6U29	SU39
ST78	9 T88	ST98	SU08	SU18	5028	SU38
ST77	ST87	ST97	SU07	SU17	SU27	SU37
ST76	ST86	ST96	SU06	SU16	SU26	SU36
ST75	ST85	ST96	SU05	SU15	SU25	SU35
ST74	Б Т84	ST94	SU04	SU14	C 024	SU34
STZS	ST83	ST93	SU03	SU13	SU23	SU33
ST72	ST82	ST92	SU02	SU12	SU22	SU32
ST71	ST81	ST91	SU01	SU11	SU21	SU31

	National Status	Records up to 31.12.00	10Km Squares
Family PAMPHILIIDAE			
Pamphilius fumipennis (Curtis, 1831)	pRDB3	1+0	SU23
Pamphilius hortorum (Klug, 1808)	Unknown	1+0	SU03
Pamphilius sylvaticus (Linnaeus, 1758)	Unknown	2+0	SU02 SU22
Family ARGIDAE			
Arge ciliaris (L.,1767)	Local	3+0	ST93 SU02 SU22
Arge cyanocrocea (Forster, 1771)	Unknown	1+4	SU02 SU08 SU09 SU18

Arge enodis (L., 1767)	pRDB1	1+0	SU02
Arge fuscipes (Fallen, 1808)	Unknown	1+0	SU22
Arge gracilicornis (Klug, 1814)	Common	5+2	ST92 SU08 SU09 SU12 SU16 SU22
Arge melanochroa (Gmelin in Linnaeus, 1790)	Local	1+8	SU02 SU03 SU06 SU12 SU14 SU17
			SU26
Arge ochropa (Gmelin in Linnaeus, 1790)	Unknown	2+0	SU12
Arge pagana stephensii (Leach, 1817)	Local	3+18	ST87 ST93 SU03 SU04 SU06 SU08
			SU13 SU14 SU16 SU22 SU24
Arge ustulata (L., 1758)	Common	2+2	ST92 SU02 SU14 SU22
Family CIMBICIDAE			
Zaraea fasciata (L., 1758)	Local	1.1.0	SU22
	Local	1+0	SU22
Abia sericea (L., 1767)	Local	3+8	ST94 SU02 SU04 SU08 SU12 SU14
	** •	0.1	SU15 SU22
Cimbex connatus (Schrank, 1776)	Unknown	0+1	SU03
Cimbex femoratus (L., 1758)	Unknown	0+1	SU21
Family DIPRIONIDAE			
Gilpinia hercyniae (Hartig, 1837)	Naturalised	1+0	SU03
Chip and here, mue (Traiting, 1057)	. Tataranoed		0000
Family TENTHREDINIDAE			
Sub-family Selandriinae	0		07.00 07.00 C
Dulophanes morio (Fabricius, 1781)	Common	2+0	SU02 SU22
Brachythops flavens (Klug, 1816)	Notable/Nb	1 + 0	SU12
Brachythops wuestneii (Konow, 1885)	pRDB3	1 + 0	SU12
Selandria serva (Fabricius, 1793)	Common	0+27	ST85 ST86 ST96 ST99 SU02 SU03
			SU08 SU09 SU14 SU18 SU26
Selandria sixii Vollenhoven, 1858	Local	0+2	ST98 SU03
Strombocerina delicatulus (Fallen, 1808)	Common	1+2	SU16 SU22 SU26
Strongylogaster lineata (Christ, 1791)	Unknown	5+2	ST82 ST95 ST98 SU02 SU22
Aneugmenus padi (L., 1761)	Common	5+0	SU02 SU03 SU12 SU22 SU23
Birka cinereipes (Klug, 1816)	Common	1+0	SU12
Sub-family Dolerinae			
Dolerus aericeps Thompson, 1871	Common	2+2	SU03 SU12
Dolerus bimaculatus (Geoffroy in Fourcroy, 1785		0+1	SU16
Dolerus cothurnatus Lepeletier, 1823	Local	0+2	SU03 SU08
Dolerus germanicus (Fabricius, 1775)	Local	1+1	SU09 SU12
Dolerus ferrugatus Lepeletier, 1823	Unknown	1+2	ST97 ST98 SU22
Dolerus madidus (Klug, 1818)	Unknown	1+0	SU22
Dolerus triplicatus (Klug, 1818)	Local	1 + 0	SU22
Dolerus vestigialis (Klug, 1818)	Unknown	1+1	SU06 SU12
Dolerus aeneus Hartig, 1837	Common	4+6	SU02 SU03 SU09 SU16 SU22 SU26
Dolerus gonager (Fabricius, 1781)	Unknown	2+0	SU12
Dolerus haematodes Schrank, 1781	Unknown	3+2	SU09 SU12 SU22
Dolerus megapterus Cameron, 1881	pRDB3	0+1	SU16
Dolerus niger (L., 1767)	Common	2+0	SU12
Dolerus nigratus (Muller, 1776)	Common	2+20	ST98 SU02 SU08 SU09 SU12
Dolerus picipes (Klug, 1818)	Common	1+17	ST94 ST98 SU02 SU06 SU08 SU09
			SU12 SU14 SU18 SU24 SU27
Dolerus planatus Hartig, 1837	Unknown	1+0	SU12
Dolerus possilensis Cameron, 1882	Unknown	1+0	SU12
Dolerus puncticollis Thomson, 1871	Unknown	1+4	SU09 SU12
Dolerus sanguinicollis (Klug, 1818)	Common	3+5	ST82 ST97 SU03 SU06 SU09 SU12
			SU16 SU22
Dolerus varispinus Hartig, 1837	Unknown	2+3	SU02 SU03 SU08 SU09

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SAWFLY (HYMENOPTERA: SYMPHYTA) RECORDING IN WILTSHIRE 1947-2000

Sub family Allentings			
Sub-family Allantinae Athalia bicolor Lepeletier, 1823	Unknown	3+11	SU02 SU03 SU09 SU12 SU14 SU22 SU27
Athalia circularis (Klug,1815)	Common	3+22	ST82 ST85 SU02 SU06 SU08 SU09
Athalia cordata Lepeletier, 1823	Common	3+39	SU12 SU22 SU24 ST85 ST97 SU03 SU08 SU09 SU12 SU14 SU15 SU16 SU17 SU22 SU23 SU26 SU27 SU35
Athalia glabricollis Thomson, 1870	Common	2+2	SU09 SU22
Athalia liberta (Klug, 1815)	Unknown	1+11	SU02 SU08 SU09 SU15 SU16
Athalia lugens (Klug, 1815)	Common	2+0	SU12 SU22
Athalia rosae (L., 1758)	Local	1+6	SU08 SU09 SU12
Athalia scutellariae Cameron, 1880	Unknown	2+1	ST96 SU12
Empria alector Benson, 1938	Unknown	2+1	SU12 SU21
Empria baltica Conde, 1937	Common	3+3	SU03 SU08 SU09 SU12 SU22
Empria immersa (Klug, 1818)	Unknown	1+0	SU22
Empria klugii (Stephens, 1835)	Unknown	4+3	SU22 ST92 SU02 SU06 SU22 SU23 SU27
Empria liturata (Gmelin in L., 1790)	Notable/Nb	3+0	SU12 SU22
Empria tridens (Konow, 1885)	Unknown	3+0	SU02 SU12 SU22
Ametastegia albipes (Thomson, 1861)	Local	1+0	SU22
Ametastegia equiseti (Fallen, 1808)	Local	2+0	SU22 SU02 SU12
	Local	2+0	SU12
Ametastegia glabrata (Fallen, 1808) Ametastegia carpini (Hartig, 1837)	Unknown		SU12 ST85 SU09
	Common	0+3	
Ametastegia pallipes (Spinola, 1808)		0+1	SU03 SU03 SU08 SU09 SU12 SU14
Allantus calceatus (Klug, 1818)	Common	1+5	
Allantus cinctus (L., 1758)	Unknown	2+2	SU08 SU12 SU22
Allantus cingulatus (Scopoli, 1763)	Unknown	2+0	SU02 SU03 ST85 SU03 SU12 SU22
Allantus rufocinctus (Retzius in DeGeer, 1783)	Common	3+1	
Allantus truncatus (Klug, 1818)	Local	4+0	SU02 SU12 SU22
Apethymus filiformis (Klug, 1818)	Unknown	1+0	SU02
Caliroa annulipes (Klug, 1816)	Unknown	3+1	SU03 SU09 SU22
Caliroa cerasi (L., 1758)	Common	1+2	ST94 SU12 SU13
Caliroa varipes (Klug, 1816)	Unknown	1+0	SU22
Endelomyia aethiops (Fabricius, 1781)	Unknown Unknown	2+0 0+1	SU02 SU23 ST94
Heterarthrus aceris (Kaltenbach, 1856)	Unknown	1+0	SU22
Heterarthrus microcephalus (Klug, 1818)	Unknown	1+0 1+0	SU22 SU22
Heterarthrus ochropodus (Klug, 1818)	UIKIIOWII	170	3022
Sub-family Blennocampinae			
Tomostethus nigritus (Fabricius, 1805)	Unknown	3+0	SU02 SU12
Eutomostethus ephippium (Panzer, 1798)	Common	6+0	ST92 SU02 SU12 SU22
Eutomostethus luteiventris (Klug, 1816)	Common	3+6	SU03 SU08 SU09 SU12 SU16 SU22
Eutomostethus punctatus (Konow, 1837)	Local	1+0	SU22
Stethomostus fuliginosus (Schrank, 1781)	Common	3+5	ST97 SU02 SU03 SU08 SU12 SU16
Phymatocera aterrima (Klug, 1818)	Unknown	0+8	ST85 ST97 ST98 SU03 SU18 SU23 SU24
Paracharactus gracilicornis (Zaddach, 1859)	pRDB3	1+0	SU02
Monophadnus pallescens (Gmelin in L., 1790)	Unknown	2+2	SU02 SU09 SU12
Periclista albida (Klug, 1816)	Unknown	1 + 0	SU22
Periclista lineolata (Klug, 1816)	Common	1+0	SU22
Ardis brunniventris (Hartig, 1837)	Local	1+0	SU03
Pareophora pruni (L., 1758)	Unknown	2+0	SU12
Blennocampa phyllocolpa			
(Viitasaari & Vikberg, 1985)	Common	1+2	SU03 SU04 SU12
Monophadnoides ruficruris (Brulle, 1832)	Unknown	1+0	SU22
Monophadnoides tenuicornis (Klug, 1816)	-	0+1	SU09
Monophadnoides waldheimi (Gimmerthal, 1847)	pRDB3	1+0	SU02
Halidamia affinis (Fallen, 1807)	Unknown	5+2	ST82 ST92 SU02 SU06 SU12 SU13
			SU26

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pRDB3	1+0	SU12
Unknown	1+0	SU12
Unknown	2+0	SU02 SU22
Unknown	1+0	SU13
Common	1+0	SU22
Unknown	2+0	SU03 SU12
Unknown	2+0	SU12 SU13
		ST94 SU02 SU03 SU04 SU12 SU14
		SU15 SU22 SU26
Vagrant/Accidental	1+1	SU02 SU14
Unknown	5+6	SU02 SU03 SU08 SU09 SU12 SU14
		SU15 SU22
Common	1+11	ST85 ST87 ST92 SU02 SU03 SU09
		SU16 SU18
Unknown	1+0	SU12
Unknown	3+1	SU02 SU03 SU12 SU16
Unknown	0+6	ST85 SU08 SU09 SU14 SU17
Common	3+13	ST94 ST95 SU02 SU04 SU06 SU08
		SU09 SU12 SU14 SU22 SU27
Unknown	2+0	SU22
Unknown	1+0	SU12
Unknown	1+4	ST94 SU08 SU12 SU18
Unknown	1+1	SU12 SU22
Common	3+4	ST85 ST87 SU02 SU09 SU22 SU23 SU24
Common	3+27	ST85 ST87 ST94 ST98 ST99 SU02
		SU04 SU06 SU08 SU09 SU12 SU14
		SU16 SU22 SU24
Local	3+0	SU02 SU03
-	2+0	ST92 SU22
Unknown	4+17	ST85 ST87 ST94 SU02 SU03 SU08
		SU09 SU12 SU22
Unknown	4+0	SU02 SU12 SU22
Local	1+0	SU03
Unknown	3+0	SU02 SU22
Common	4+0	SU03 SU12 SU22 SU23
Common	2+3	SU02 SU03 SU08 SU09 SU27
Common	2+15	ST94 ST95 ST98 SU03 SU04 SU05
		SU06 SU12 SU15 SU16 SU22 SU25
Common	2+20	ST94 ST95 ST98 SU02 SU04 SU06
		SU08 SU12 SU13 SU15 SU18 SU25
		SU35 SU36
Unknown	2+14	ST94 ST95 ST98 SU02 SU04 SU06
		SU09 SU12 SU014 SU15 SU22
Unknown	1+7	ST94 SU12 SU14 SU25
Local	1+11	ST98 SU03 SU04 SU05 SU08 SU09
		SU12 SU16 SU26
Unknown	3+10	SU02 SU03 SU04 SU09 SU12 SU13
		SU14 SU15 SU23 SU25
		SU02
Notable/Nb	2+0	SU02 SU22
0	4.1.5	
Common	4+6	ST98 SU02 SU03 SU04 SU06 SU08
		SU12 SU22 SU27
	Unknown Unknown Common Unknown Common Unknown Vagrant/Accidental Unknown Common Unknown Unknown Unknown Unknown Unknown Unknown Common	Unknown 1+0 Unknown 2+0 Unknown 1+0 Common 1+0 Unknown 2+0 Unknown 2+0 Unknown 2+0 Unknown 2+11 Vagrant/Accidental 1+1 Unknown 1+1 Unknown 1+1 Unknown 1+0 Unknown 1+1 Unknown 1+0 Unknown 2+0 Unknown 2+0 Unknown 1+0 Unknown 1+1 Common 3+13 Unknown 1+4 Unknown 1+1 Common 3+27 Local 3+0 - 2+0 Unknown 4+17 Unknown 4+17 Unknown 4+0 Common 2+3 Common 2+3 Common 2+14 Unknown 2+14 Unk

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SAWFLY (HYMENOPTERA: SYMPHYTA) RECORDING IN WILTSHIRE 1947-2000

Macrophya duodecimpunctata (L., 1758)	Unknown	2+5	ST92 SU03 SU08 SU09 SU12 SU16
Macrophya punctumalbum (L., 1767)	Local	4+1	ST92 SU02 SU12 SU14 SU22
Macrophya ribis (L., 1758)	Unknown	2+2	ST85 SU06 SU12
Macrophya rufipes (L., 1758)	Unknown	2+3	SU06 SU12 SU14
Pachyprotasis antennata (Klug, 1817)	Unknown	3+1	SU02 SU03 SU16
Pachyprotasis rapae (L., 1767)	Common	3+5	ST94 ST97 SU02 SU09 SU12 SU22
			SU25
Sub-family Nematinae			
Cladius pectinicornis	6	() 0	
(Geoffroy in Fourcroy, 1785)	Common	6+0	SU03 SU12 SU22
Priophorus morio (Lepeletier, 1823)	Unknown	2+2	ST94 SU03 SU08 SU22
Priophorus pallipes (Lepeletier, 1823)	Unknown	2+3	SU04 SU12 SU14 SU22 SU25
Priophorus pilicornis (Curtis, 1833)	Unknown	4+2	ST94 ST95 SU03 SU12 SU22
Priophorus ulmi (L., 1758)	Local	2+0	SU03 SU12
Mesoneura opaca (Klug, 1819)	Unknown Unknown	3+1	ST94 SU02 SU12
Nematinus luteus (Panzer, 1805) Dineura stilata (Klug, 1816)	Unknown Unknown	2+0	SU13 SU22 ST02 SU02 SU12
Dineura viridorsata (Tetzius in Degeer, 1783)	Unknown	3+0	ST92 SU02 SU12 SU02 SU03 SU23
Hemichroa australis (Lepeletier, 1823)	Unknown	3+0 2+0	SU22 SU03 SU23
Hoplocampa alpina (Zetterstedt, 1825)	Unknown	2+0 1+0	ST82
Hoplocampa ariae Benson, 1933	Unknown	1+0	SU22
Hoplocampa chrysorrhoea (Klug, 1816)	Unknown	1+0	SU12
Hoplocampa crataegi (Klug, 1816)	Unknown	1+0	SU12
Hoplocampa pectoralis Thomson, 1871	Unknown	2+0	ST82 SU12
Hoplocampa fulvicornis (Panzer, 1801)	Unknown	2+0	SU12
Pristiphora abietina (Christ, 1791)	Unknown	1+0	SU12
Pristiphora biscalis (Foerster, 1854)	Unknown	2+0	SU12 SU12 SU22
Pristiphora monogyniae (Hartig, 1840)	Unknown	4+0	SU03 SU12 SU22
Pristiphora laricis (Hartig, 1837)	Unknown	2+0	ST84 SU12
Pristiphora aquilegiae (Vollenhoven, 1866)	pRDB3	0+1	SU04
Pristiphora armata (Thomson, 1862)	Unknown	5+4	ST94 ST95 SU12 SU13 SU22
Pristiphora geniculata (Hartig, 1840)	pRDB3	2+1	SU22
Pristiphora melanocarpa (Hartig, 1840)	Unknown	1+0	SU02
Pristiphora pallidiventris (Fallen, 1808)	Common	5+0	SU02 SU03 SU22
Pristiphora punctifrons (Thomson, 1871)	Unknown	2+0	SU02
Pristiphora rufipes (Lepeletier, 1823)	Unknown	2+0	SU12
Pristiphora subbifida (Thomson, 1871)	Unknown	1+1	ST92 SU09
Pristiphora testacea (Jurine, 1807)	Unknown	2+0	ST92 SU12
Sharliphora nigella (Foerster, 1854)	-	1+0	SU22
Amauronematus histrio (Lepeletier, 1823)	Unknown	1+0	SU12
Amauronematus humeralis (Lepeletier, 1823)	Unknown	1+0	SU22
Decanematus leucolenus (Zaddach, 1862)	Unknown	1+0	SU22
Decanematus malaisei (Hellen, 1970)	pRDB3	1+0	SU03
Decanematus viduatus (Zetterstedt, 1838)	Unknown	1+0	SU22
Euura atra (Jurine, 1807)	Unknown	1+0	SU12
Euura mucronata (Hartig, 1837)	Common	1+0	SU12
Pontania bridgmanii (Cameron, 1883)	Unknown	2+0	SU02 SU22
Pontania proxima (Lepeletier, 1823)	Unknown	1+0	SU12
Pontania tuberculata (Benson, 1953)	pRDB3	2+0	SU22
Pontania pedunculi (Hartig, 1837)	Local	2+0	SU12
Pontania viminalis (L., 1758)	Common	1+0	SU12
Craesus latipes (Villaret, 1832)	Unknown	1+1	SU08 SU13
Craesus septentrionalis (L., 1758)	Unknown	1+2	SU03 SU13 SU22
Nematus lucidus (Panzer, 1801)	Common	2+3	ST99 SU09 SU12
Nematus bergmanni Dahlbom, 1835	Common	2+0	SU12
Nematus bipartitus Lepeletier, 1823	Common	0+1	SU09
Nematus fagi Zaddach, 1875	Unknown	2+1	SU02 SU16 SU22
Nematus flavescens Stephens, 1835	Local	1+0	SU12

Nematus hypoxanthus Foerster, 1854	Unknown	1 + 0	SU22
Nematus incompletus Foerster, 1854	Unknown	1+0	SU12
Nematus leucotrochus Hartig, 1831	Unknown	2+0	SU02 SU12
Nematus melanaspis Hartig, 1840	Common	1 + 0	SU22
Nematus myosotodis (Fabricius, 1804)	Common	3+3	SU02 SU04 SU08 SU09 SU12 SU22
Nematus pavidus Lepeletier, 1823	Unknown	1 + 0	SU02
Nematus poecilonotus			
Zaddach in Brischke & Zaddach, 1875	Unknown	1 + 0	SU03
Nematus ribesii (Scopoli, 1763)	Common	1+2	SU03 SU08 SU12
Nematus salicis (L., 1758)	Unknown	1+0	SU12
Nematus spiraeae Zaddach, 1882	Naturalised	0+1	SU04
Nematus umbratus Thomson, 1871	Unknown	1+0	SU02
Nematus viridis Stephens, 1835	Unknown	2+0	SU02
Pachynematus extensicornis (Norton, 1861)	Common	1+2	SU09 SU12 SU24
Pachynematus kirbyi (Dahlborn, 1835)	Common	1 + 1	SU08 SU12
Pachynematus lichtwardti Konow, 1904	Unknown	1+0	SU03
Pachynematus moerens (Foerster, 1854)	Unknown	1+0	SU12
Pachynematus obductus (Hartig, 1837)	Common	2+1	SU02 SU12 SU25
Pachynematus trisignatus (Foerster, 1854)	Unknown	2+1	SU02 SU14 SU23
Pachynematus vagus (Fabricius, 1781)	Common	1+1	SU02 SU03
Pachynematus xanthocarpus (Hartig, 1840)	pRDB3	1+0	SU02
Pachynematus albipennis (Hartig, 1837)	Local	0+1	SU09
Pikonema imperfectus			
(Zaddach & Brischke, 1875)	Naturalised	1+0	SU03
Family SIRICIDAE			
Urocerus gigas (L., 1758)	Local	0+7	ST84 ST85 ST92 ST98 SU06 SU22
			SU23
Family CEPHIDAE			
Hartigia linearis (Schrank, 1781)	Unknown	2+0	SU02 SU22
Hartigia xanthostoma (Eversmann, 1847)	pRDB3	1+4	SU03 SU08 SU09 SU12 SU18
Cephus cultratus Eversmann, 1847	Unknown	1+12	ST85 ST98 SU02 SU03
			SU08 SU09 SU12 SU18 SU27
Cephus nigrinus Thomson, 1871	Local	1+0	SU02
Cephus pygmeus (L., 1766)	Unknown	1+9	SU02 SU03 SU12 SU13 SU26 SU27
Trachelus tabidus (Fabricius, 1775)	Unknown	1+0	SU12
Calameuta filiformis (Eversmann, 1847)	Unknown	0+3	SU08
Calameuta pallipes (Klug, 1803)	Common	4+3	ST87 ST98 SU02 SU12 SU22 SU23
			SU27

DISCUSSION

There were 219 species of sawflies recorded in Wiltshire between 1947 and December 2000. This figure represents 43.7% of the British total of 501 species (although 9 of these are thought to be extinct). Sir Christopher Andrewes recorded 200 species in the first period and 104 species were recorded in the second. 115 of the species seen in the first period were not recorded in the second and 19 species from the second period were not recorded in the first.

The extrapolation of information about faunal changes from the comparison of such small data

sets is liable to be misleading. It is expected that the continuation of recording will produce records of some of the additional species seen by Sir Christopher, but perhaps not all. It would be surprising if modern methods of managing the countryside and climate change have not affected sawflies as they have other taxa such as butterflies.

Some of the species recorded in the second period deserve special comment. The *Cimbex connatus* found by Henry Edmunds near Compton Chamberlayne in July 1997 was the first British record for many decades (Edmunds, H.A. & Springate, N.D. 1998). The former pest species *Athalia rosae* (Turnip Sawfly), now considered rare, was found in 1999 and 2000 in a number of marshy sites in the north of the county. It has not been established whether these were migrants from the continent or a local indigenous population. Two rare Dolerus sawflies were found at Jones's Mill in 2000. D.bimaculatus and D.megapterus, both species with only a handful of other British records, mainly from further north. Another species which is rated nationally as pRDB3 is the spectacular stem-sawfly Hartigia xanthostoma. This has been found at a number of sites in Wiltshire where the larval host plant Filipendula ulmaria (Meadowsweet) is prolific. I have begun to expect this species to turn up at such sites and it is possibly not as rare as its national status suggests. One of the commonest species which can be found in any damp situation is Selandria serva and it is strange that it was not recorded in the first period. Perhaps it was much scarcer in Wiltshire at that time. Further work in the future, both in the field and on the pre-1947 Marlborough records, will help, I hope, not only to solve this problem but also to enable the much wider assessment which these fascinating insects so clearly deserve.

ACKNOWLEDGEMENTS

I wish to thank Dr David A. Sheppard for his advice on all matters sawfly, for leading a sawfly workshop in Wiltshire and for reading a draft of this article. Most of the more difficult determinations of the recent Wiltshire records have been carried out by Andrew J. Halstead, Senior Entomologist, Royal Horticultural Society, Wisley. I am most grateful to David and Andrew for their enthusiastic support and guidance while I have been on my learning curve. Thanks also to the growing band of people who have submitted records to me. Finally, much of the descriptive material has been taken from Wright, A., 1990.

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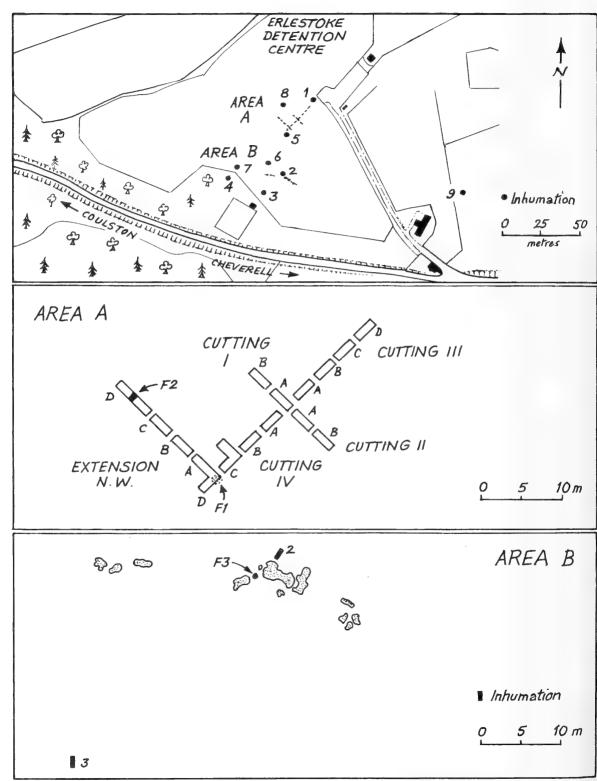


Fig. 1. Location of the excavation, and plans of Areas A and B, based on D. Grant King's original plans

The 1963 Excavations at Erlestoke Detention Centre by A.M. Foster¹ and D. Roddham²

with contributions by Paul Robinson³ and Robert Hopkins⁴

Small-scale excavations at Erlestoke Detention Centre (now H.M. Prison) by Denis Grant King in 1963 recovered a quantity of Bronze Age, Iron Age, and Romano-British pottery and small finds. Four inhumation burials were also excavated. Grant King did not complete a final report on this material which is now in the Wiltshire Heritage Museum, Devizes. His excavations and finds are summarised below; they indicate a small cemetery of probable Roman date, and a midden area. Any associated settlement was not found.

INTRODUCTION

In September 1963, following the discovery of a number of Romano-British sherds in the grounds of Erlestoke Detention Centre (ST 96975391), now H.M. Prison, Erlestoke, Denis Grant King was invited to undertake a small-scale examination of the area over one week. No final report was prepared and the pottery, small finds, and excavation notebooks were deposited in what is now the Wiltshire Heritage Museum, Devizes after Grant King's death in 1994. A detailed account of the excavation, including a list of small finds, is deposited with the archaeological archive at the Museum. The following is a summary of that report.

BACKGROUND

The Detention Centre lies within the grounds of the former Manor of Erlestoke in an area of upper greensand overlying gault clay to the north. To the south is the chalk of Salisbury Plain. Grant King reported 'light brown soil' to a depth of between 0.46-0.76m on the site.

Despite extensive tree planting in the 1780s and the demolition and replacement of the old Manor House between 1786 and 1791, little of archaeological interest had been reported in the area prior to 1963 and nothing on the site itself. Subsequently, in 1982/83, a Romano-British settlement was reported at Brounker's Court and White Gates Farms approximately 1km to the west of the Detention Centre (Anon 1982, 160). The former has yielded a collection of early 3rd-late 4th century coins as well as fibulae of Langton Down and Hod Hill type. At White Gates Farm a lion's head mount of mid 1st century AD and 3rd and 4th century coins have been found. Both sites produced Romano-British potsherds.

THE EXCAVATIONS

Using the enthusiastic but untrained young inmates as his labour force, Grant King excavated a series of small cuttings in an area of the Centre he called the 'North Front' (Fig. 1, Area A). This area had been much disturbed by previous digging (not excavation) by the prisoners. Consequently, the majority of finds from this area are unstratified. Grant King also examined a small area approximately 66m to the south of those cuttings which he called the 'Southwest' (Fig. 1, Area B).

¹ Springfield, Bath Road, Devizes, SN10 1PH ² 67a Hill Corner Road, Chippenham SN15 1DR ³ The Museum, 41 Long Street, Devizes, SN10 1NS ⁴19 Rawlings Road, Llandybie, Ammanford SA18 3YD

Within Area A he identified two features, the first of which he described as a cluster of 54 stones, some burnt, in the north-east corner of Cutting IVD (Fig. 1, F1). This feature was associated with numerous animal bones (cattle, sheep/goat, horse). About 1m southwest of these stones he recorded a 'saucepan type' pot, now missing, filled with charcoal, lying 1m deep in a dark charcoal layer. Twelve metres south of the southwest corner of IVD was a skull fragment from an adult male.

In Cutting IVD, Extension Northwest D (Fig. 1, F2), a possible ditch approximately 1.8m deep and 1.8m wide was excavated. The ditch appeared to run SW/NE but was not excavated beyond the boundaries of the cutting. Finds from the ditch include remains of cattle, a clay loom-weight, a bone handle, and an iron rod (probably post-mediaeval). Pottery from the ditch is sparse; among the finds are two fragments of a Gallo-Belgic beaker of the mid 1st century AD, sherds of Savernake ware, and small sherds of miscellaneous Romano-British coarse wares. Grant King also reported a sherd of 2nd century samian 'near the top' of the ditch.

Within Area B (Fig. 1) Grant King described a series of irregular 'white stone blocks' capped by 'cob' (not further defined). These formed a feature roughly 5.8m long and 0.6-1.5m wide with a right angle end 'wall' at the eastern end. Within the first section were two cavities 2.44m apart and 0.76m deep. To the south, east, and west were more irregularly shaped 'blocks'. Immediately to the north of the main feature was an inhumation (no. 2); to the south was a pit (F3) filled with animal bone, none of which survives.

Small finds from within Area B include a fragmentary bone comb of Roman type, a bone spindle whorl, 74% of the iron nails found on the site and three (and probably a further three) of the seven large but fragmentary clay weights found. Fragments of two quern stones and a whetstone were also recovered.

Burials

Eight inhumations (Fig. 1) have been recorded within the Detention Centre. Four (nos. 1, 2, 3, 5) were excavated by Grant King with a further two (nos. 4 and 8) noted in his excavation papers from information supplied by prison staff. Two more (nos.6 and 7) were subsequently reported during construction at the prison in 1981 and 1988. Four have been identified as male, one as female. Three had not been sexed at the time of discovery and are now missing. All those examined are adult. There is no consistent orientation of the burials. Inhumation 1 was supine with the head to the west; inhumation 2 was also supine but with the head to the north-east, and inhumation 3 was flexed with the head to the north. The position of the other inhumations is not recorded. With the possible exception of inhumation 2, where 20 nails are recorded 'near' the grave, none have coffins. Only inhumation 6 had any grave goods (in this case hobnailed footwear), although two others (nos. 2 and 3) were associated with small sherds of Romano-British pottery. A bone comb was recovered 'near' inhumation 2. Inhumation 1 was found boxed with two possible polishing bones and a third human ulna. Dating of most of the skeletons is therefore ambiguous. A detailed description of the graves and skeletons is in the archive.

THE FINDS

Pre-Roman Pottery by Paul Robinson

A not insubstantial assemblage of over 260 potsherds and other items of later prehistoric date were also recovered from the site by Mr Grant King. The greater proportion of the sherds date from the first half of the 1st millennium BC, with a few sherds which may be identified as from vessels in the Middle Iron Age 'saucepan' tradition. There is no evidence for a continuous sequence of pottery throughout the latter part of the millennium suggesting that there was probably a break in the habitation sequence between the Middle Iron Age and the late Iron Age/earliest Romano-British phase. None of the pottery is stratified and only a proportion is marked with its location. If these marked sherds are indeed representative of the whole collection, then it would appear that nearly all of this later prehistoric pottery derives from Area A. There is certainly a concentration of potsherds from the vicinity of feature 1 (the hearth), which may imply that this feature is perhaps from a building of later prehistoric date. A few marked sherds are associated with feature 2 (the ditch): these may be contemporary with it or may be residual.

Seven main fabric types are represented:

1. Flint gritted fabrics (10 sherds). The identifiable forms which are chronologically early in date are a small

cup shaped vessel, perhaps a crucible (Fig. 2: 1), and body sherds from a wide mouthed bowl decorated with fingertip impressions. A sherd from a wheel-turned jar with a swollen rim close to a bead rim is of Late Iron Age or Early Roman date.

2. Oolite grit tempered wares (143 sherds). In quantity these constitute the principal fabric type on the site. Most of the sherds derive from large jars with plain rims (Fig. 2: 2), although one has a flattened rim with shallow fingertip decoration beneath it. One body sherd from a carinated bowl has spaced fingertip decoration. Another similar sherd is decorated with oblique parallel lines around the upper zone of the vessel (Fig. 2: 3).

3. Sandy fabrics (70 sherds). The sherds come from a wide range of vessel forms including wide mouthed storage jars (Fig. 2: 4) and carinated bowls. Some of the rim sherds are plain or turned slightly upwards with a swollen rim akin to a bead rim. Four rim sherds have fingertip decoration around the rim while other body sherds have finger impressions around the shoulder (Fig. 2: 5). A few sherds have All Cannings Cross type incised decoration. One small body sherd has a pattern of stamped concentric circles which were possibly originally infilled with a white paste (Fig. 2: 6). One shows a pattern of 'concentric' diamonds (Fig. 2: 7) and is similar to a 'waster' with the same pattern found at Cold Kitchen Hill in Brixton Deverill. A sherd from a carinated vessel is decorated with a pattern of oblique lines or triangles (Fig. 2: 8).

4. Fine, red-finished wares (10 sherds). The proportion of fine wares in the assemblage is small. They include a single body-sherd from a scratched-cordoned bowl (Fig. 2: 9) and four sherds from shallow, wide-mouthed furrowed bowls (Fig. 2: 10-12). One sherd has a partially smoothed edge where an attempt has begun, perhaps in Roman times, to make it into a counter or similar object (Fig. 2: 13).

5. Glauconitic sand gritted ware (1 sherd). A single, well-finished body sherd (Fig. 2: 14) has glauconitic sand in the temper and comes from a jar with small, neat fingertip impressions around the body of the vessel.

6. Shell-tempered fabrics (23 sherds). Sherds with temper of shell and finely ground limestone constitute a major element in the assemblage. Most are very well finished. The rim sherd from a shallow wide-mouthed bowl (Fig. 2: 15) may alternatively have been a steep-sided lid or cover. A small rim sherd (Fig. 2: 16) has a broad but shallow groove under the rim.

7. 'Saucepan' forms. Two rim sherds are from straight-sided vessels in the 'saucepan' tradition of the Middle Iron Age. One has a simple bead rim created by a shallow groove under the rim, and is tempered with crushed flint (Fig. 2: 17). The other has a rim in a similar form but is made from a smoother, more sandy mix (Fig. 2: 18).

Romano-British Pottery

The Romano-British pottery from Erlestoke consists of 3150 sherds (69.5kg) the majority of which are unsourced Romano-British grey ware body sherds. Many are quite large, over 5cm. Over 75% of the sherds cannot be assigned to any area or feature, having only a general site identification number. There does not appear to be a concentration of any single fabric within a specific area.

Early forms include several sherds of Gallo-Belgic derived platters. Savernake wares are the most common of the fabrics from known sources numbering 14% (26% by weight) of the total assemblage. These wares have been analysed by Robert Hopkins who reports that the majority of the vessels are grey wares. Although there is a minimum of 50 vessels represented, the forms are almost exclusively restricted to small, medium, and large storage jars, the exception being a butt beaker. The full report is in the archive.

Black-burnished products (plain-rimmed dishes, conical flanged bowls, and cooking pots) of the mid 2nd through the 4th century account for 4% of the total sherds. There is a mid-late 2nd century sherd from the kilns at Caerleon and two sherds of South-west white-slipped ware, both from different mortaria. Three sherds of 'Rhenish' ware represent three different vessels.

Third-4th century products of the Oxford kilns include mortaria, and sherds from several colourcoated bowls. New Forest wares are few, seven sherds from 3rd-4th century flagons and beakers. There are a few late 4th century grey wares.

As a whole, the Romano-British assemblage indicates activity at Erlestoke Detention Centre from perhaps the immediately pre-conquest period through to the late 4th century. The quality of the pottery does not suggest anything other than a comparatively low status rural site. The number of Savernake vessels may reflect intensity of use in the 1st-2nd centuries AD.

Samian Ware by Robert Hopkins

The samian assemblage from Erlestoke is relatively small (23 sherds) with only two mid-late 1st century vessels, one Hadrianic, while the bulk of the vessels reaching the site were made c.AD 140-200. The

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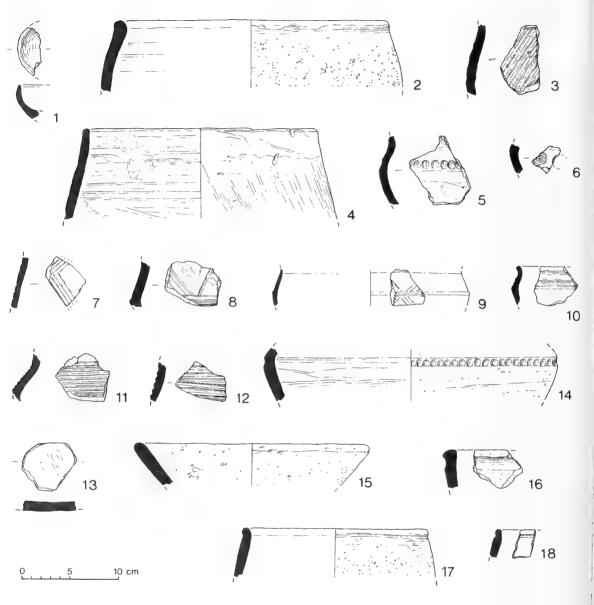


Fig. 2. Pre-Roman pottery. Scale 1:4

commonest 2nd century plain forms are usually platters of the 18/31-31 range, as here (8=40%); however there is a larger number of form 38 (3=17%) than is normal. The ratio of almost 4:1 in favour of plain ware over decorated is in keeping with other civilian sites. There are no east Gaulish examples; whether this is demonstrative of a decline in the economy of the site during the very late 2nd– early 3rd century or simply the absence of 'East Gaulish traders' in central Wiltshire must remain unanswered until further work on the marketing of samian in this area is undertaken.

SAMIAN STAMPS

There were four stamped samian sherds, kindly identified by Dr. Brenda Dickinson.

- 1. DRAVCI, on form 31, AD 150-180.
- 2. QVINTIO, on form 27g, AD 60-85.

THE 1963 EXCAVATIONS AT ERLESTOKE DETENTION CENTRE





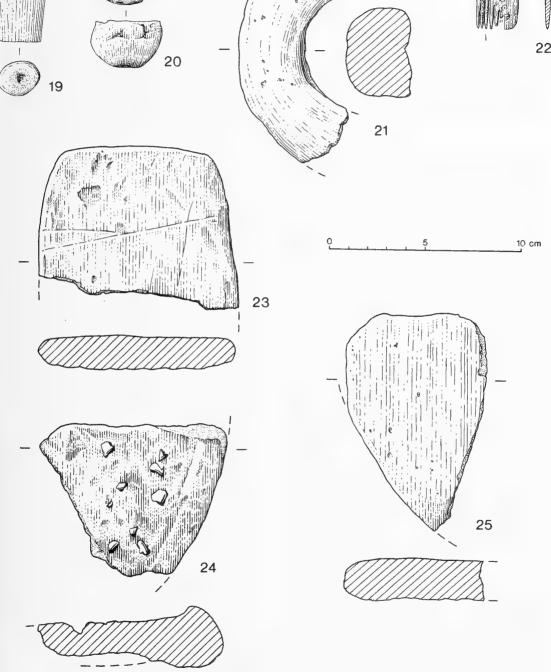


Fig. 3. Objects of Iron Age date: bone, nos 19 and 20; ceramic, no. 21. Objects of Roman date: bone and iron, no. 22; ceramic, nos 23-25. Scale 1:2

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3. CVCCI(LLI), on form 31, AD 150-180.

4. VEGETI.(M), on form 37, AD 120-140/50.

Small Finds: Neolithic

FLINT

The 11 pieces of worked flint from the site were examined by Philip Harding who reported that all were likely to be residual. The material may represent several periods of activity, the earliest of which probably dates to the early Neolithic. The Neolithic phase is represented by two blades and a scraper.

Small Finds: Iron Age

Six items of worked bone were recovered including a bone handle (Fig. 3, 19) from the ditch and a spindle whorl (Fig. 3, 20) from Area B. A scoop and rib knife are known only from Grant King's notes; their find spots are not recorded. Two polishing bones were found boxed with inhumation 1 from Area A.

A ceramic weight in the shape of a ring (Fig. 3, 21) with an external diameter of approximately 13cm was recovered, although its find spot was not recorded. A similar quoit-like object was found at Potterne (Hall 2000, fig. 65.22).

At least six and probably seven individual clay weights are represented by seven fragments. Six of these are of a light grey-pinky fabric. All come from triangular weights, the fragments ranging from 475-2600g, the latter almost complete. Such large weights are often referred to as thatch weights (Poole 1991, 375). Three of the six are from Area B near inhumation 2. The remaining three, although unmarked, almost certainly are as well (Grant King notes). The remaining weight, from the ditch, is almost complete at 550g and is of a grey-buff fabric with large chalk inclusions clearly visible on the surface. It is roughly trapezoidal; a type usually associated with early Iron Age sites.

Small Finds: Roman

A single coin, an As of Nero (AD 54-66), was a surface find in Area A. It was identified by Paul Robinson:

Obv. (NER)O.CAESAR,AVG GER P M TR P IMP, bare

bust right

Rev. Victory advancing left holding buckler inscribed S.P.Q.R.

Ref. M & S 319.

Thirty-one items of worked iron were found; among them a knife (Manning 1985, 55.Q46) from Area B near inhumation 2, and a small hook, possibly a reaping hook, from Cutting IVB. Twentysix nails or nail fragments, most of Manning type 1, were recovered, 20 of them 'near' inhumation 2. It is not recorded whether any of these nails are actually from the burial where they could have indicated a coffin.

A bone comb (Fig. 3, 22) from 'near' inhumation 2 has a ring and dot pattern and is paralleled by a late Roman example from Colchester (Crummy 1983, fig. 59.1860). Bone combs are sometimes found with Romano-British burials (Philpott 1991, fig. 32); 13 examples similar to the Erlestoke comb were excavated at Lankhills (Clarke 1979, 246-248). The only other recorded example from Wiltshire, however, is the bone comb from the inhumation cemetery at Boscombe Down West (Richardson 1952, 133). It is unfortunately now missing.

Thirty-two fragments of clay plates representing at least 11 plates were also found (Fig. 3, 23-25). Only two of 32 have recorded find spots, one in the 'SE', and the other in Area B. Although none is complete, seven are from circular plates with estimated diameters ranging from 18-26cm. The thickness varies between 1.7-3.0cm. Three fragments are from rectangular plates with rounded corners. It is not now possible to determine their original dimensions; thickness ranges from 1.4-1.9cm. The basic fabric of the plates is sandy, pinkybuff to red throughout with varying amounts of grog, chalk, flint, and ironstone. The fabric is poorly mixed giving a very striated appearance in breaks. Some of the fragments appear to have been burnt. Although often cited as kiln furniture (Swan 1984, 41) similar circular plates have been found in Wiltshire on non-kiln sites; e.g. Maddington Farm (Seager Smith 1996, 58) and Figheldean (Mepham 1991, 34). Rectangular plates are also often identified as kiln furniture but appear on sites apparently without kilns; e.g. Baldock (Rigby and Foster 1986, 185-88) and King Harry Lane. At the latter it is suggested that they might have been used as salt licks for cattle (Rigby 1989, 52)

Other ceramics include three pottery counters, one from Cutting IVC, one from Area B, and a third with an unspecified find spot. All are made from Romano-British coarse wares.

Two fragments of limestone approximately 7cm across are remnants of roof tiles. No find spot is specified. A whetstone fragment and the lower stone from a rotary quern, now missing, were found 'near' inhumation 2.

ANIMAL BONE

Although bones of sheep/goat, cattle, horse, deer and bird (unspecified) were kept, much of the material mentioned in Grant King's notes is now missing. It is therefore difficult to determine any distribution of bone over the site or to associate it with dateable pottery. The majority of the labelled bone comes from Cutting IVC.

DISCUSSION

The pottery evidence form Erlestoke Detention Centre suggests use of the area over a long period beginning sometime in the Bronze Age. A hiatus following the middle Iron Age was followed by activity on the site in the late Iron Age and throughout almost the whole of the Roman period. The quantity of Savernake wares perhaps reflects most intensive use in the 1st and 2nd centuries AD.

It is probable that this area was on the fringe of a farmstead or small rural settlement where marginal land unsuitable for agricultural or light industrial purposes would have been used for domestic rubbish, perhaps in pits (hence the large size of many of the sherds). Such 'waste ground' would also have been used for adult burials, not normally allowed within a settlement during the Roman period. The cluster of inhumations in Area B, at least three of which are associated with Romano-British material, may represent some of the members of such a community.

The incomplete recording of many such small (<10 burials) rural Romano-British cemeteries in Wiltshire has made it difficult to detect patterns in burial practices of this period. Nevertheless, Erlestoke is in keeping with other more recently excavated cemeteries of this type where, for example, a mixture of flexed, crouched, and extended burials is recorded (e.g. Figheldean and Maddington Farm). Similarly, although grave goods occur in roughly a third overall of burials in such cemeteries, this proportion can vary greatly from cemetery to cemetery: at Eyewell Farm two of a

possible eight burials contain hobnails, while at Figheldean hobnails are included in eight of nine burials. Hobnails, as in these two examples and at Erlestoke, are the most frequent inclusion. However the sparseness of securely dateable artefacts within many of the burials in these and larger cemeteries makes it difficult to trace use of these cemeteries over time and some of the burials at Erlestoke may well be Iron Age.

As the area within the Detention Centre is now almost entirely built over, there will be in future very little scope for further examination of the site. Any conclusions about its use in previous periods must therefore remain tantalising speculation.

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A Preliminary Account of the Ladybirds of Wiltshire (Coleoptera: Coccinellidae) including a previously overlooked record of the five spot (Coccinella quinquepunctata L.)

by Michael Darby

All of the British species of ladybird except four are shown to have been recorded in the county and the records are listed. Two, however, published in the Report of the Marlborough College Natural History Society, are doubtful, and the reasons explained. These include a previously overlooked record of the five spot, Britain's rarest ladybird.

INTRODUCTION

Ladybirds are surely the most popular British beetles. The bright colours of many species appeal aesthetically and their diet of plant pests such as aphids is well regarded by farmers and gardeners. Although the work of the Cambridge Ladybird Survey since its establishment in 1984 has done much to increase our scientific knowledge and to help our understanding of national distribution patterns, nothing has been written specifically about the status of ladybirds in Wiltshire. This article aims to redress the balance. It is a preliminary account as the title makes clear and includes all the records currently held on the database of the Biological Records Office. Until such time as a systematic county survey has been completed (like those carried out for plants and butterflies) I have not thought it worthwhile to produce distribution maps for individual species or to attempt a detailed analysis of the data.

Should others be stimulated to become interested by reading this, as I hope, the volume by Majerus, M. and Keans, P., 1989, and also that by Majerus, M., 1994 are recommended. The former, in particular, includes simple keys and illustrations to help in identification, and is inexpensive. Ladybirds belong to the beetle family Coccinellidae of which forty two species are listed as British. Of these, eighteen in the genera *Coccidula, Rhizobius, Clitostethus, Stethorus, Scymnus, Nephus, Hyperaspis* and *Platynapsis* are not popularly considered as ladybirds (most are small and of a uniform brown or similar colouration) and have not been included here.

Because long lists of records occupy valuable space and do not make for enjoyable reading, I have tried to be as concise as possible by omitting map references, methods of capture, etc. . . Dates have been included, however, so as to give an idea of the time scales when adults are to be found. Generally speaking the ladybird life cycle lasts approximately one year and gives rise to a single generation. Eggs are laid in the spring and the larvae hatch after four days. There are then three further instars until pupation occurs between one and two months later. After emergence from the pupa the adults usually feed for a period of several weeks before dispersing to their overwintering sites, prior to mating in April/ May.

All the British ladybirds pass the winter as adults so that this is an important time for them. Severe winters can cause high mortality rates which in turn affect numbers the following year. Large

The Old Malthouse, Sutton Mandeville, Salisbury, SP3 5LZ

aggregations of overwintering ladybirds involving hundreds of specimens, sometimes of more than one species, have been reported in habitats such as grass tussocks and under bark, but these are unusual. Most spend the winter either in small groups or as individuals. Interestingly, the favoured overwintering sites of half the British ladybirds still remain to be discovered, including those of our two largest species, the eyed ladybird and the striped ladybird, both of which live on conifers.

It is well known that ladybirds feed on aphids but this is not the case for all species several of which are not carnivorous. The twenty four spot feeds exclusively on leaves and the sixteen spot, twenty two spot and orange ladybirds on mildews. Furthermore, many ladybirds will eat a wide range of other foods when aphids are not available including red meat, other insects, and even pollen and nectar, although these diets affect their ability to reproduce.

Ladybirds are to be found in most terrestrial situations though some species are very specific in their habitat choice. The preference of the eyed and the striped ladybirds for conifers has already been mentioned, and this is also the favoured habitat for the pine, larch, cream-streaked and eighteen spot ladybirds. The water ladybird, as its name suggests, lives exclusively in wetland sites, and the equally specific requirements of the heather, scarce seven spot and five spot ladybirds are detailed below. As far as national distribution patterns are concerned the majority of ladybirds are widespread in the south and become rarer the further north one travels. Within Wiltshire, the paucity of records for some species undoubtedly reflects these habitat requirements, and more focussed recording in the future will certainly increase site numbers.

A word is necessary about variation in numbers of spots and colour patterns, which in some species is very extensive and can make identification difficult. The two and ten spot ladybirds, for example, include many varieties from almost black to almost yellow, whereas the seven spot varies hardly at all. A two-year study of the Adonis ladybird, which normally has either seven or nine spots, recorded numbers ranging from three to fifteen. Those who are interested are recommended to study the volumes mentioned, which discuss variation in detail and include many illustrations. I have sometimes heard it said that numbers of spots are an indication of age but this is not the case. Like all beetles, ladybirds remain the same size and colour throughout most of their adult lives.

THE RECORDS

Subcoccinella vigintiquattuorpunctata (L.). Twenty four spot ladybird.

Boscombe Down (SP., 14 May 1992; 23 Jun 1993); Chickengrove Bottom (PM., Apr 1992; MD., 17 Jul 1995); Compton Wood (SP., 21 Apr 1993); Dinton (SP., 28 Apr 1993); Manwood Copse (SP., 28 Apr 1990); Marlborough area (Anon 1939. Three specimens appear over this name in the College collection, none with data); Martin Down NNR (RB., 21 Aug. 1989); Middleton Down (PM., 26 May 1992; 8 May 1995); Oysters Coppice (SP., 18 Apr 1993); Wardour (MD., 5 Jun 1996).

Chilocorus bipustulatus (L.). Heather ladybird.

Marlborough area (Anon., 1939. A single specimen without data appears over this name in the College collection but may not be the specimen referred to. See below).

Chilocorus renipustulatus (Rossi). Kidney spot ladybird. Bentley Wood (PM., 18 Mar 1990; 29 Jul 1990); Clouts Wood (PM., 29 Dec 1989); Compton Wood (SP., 28 Apr 1991); Dinton (SP., 1989-1993); Great Ridge Wood (MD., 14 Jun 1996); Green Lane Wood (WANHS members, 7 Jun 1995); Gurston Down, Broadchalke (MD., 13 Aug 1995); Langley Wood and Homerton's Copse (DN., 1974–1986); Little Durnford Down (PM., 19 Jul 1990; 25 Mar 1991); Marlborough area (Anon 1939. Two in College collection without data); Morgan's Hill (PM., 28 Mar 1996); Vernditch Chase (SP., 5 Jun 1990).

Exochomus quadripustulatus (L.). Pine ladybird.

Alton Down (SP., 23 May 1993); Bentley Wood (PM., 28 Jun 1990; 13 Mar 1991); Little Durnford Down (PM., 25 Mar 1991); Pepperbox Hill SNCI (PM., 9 May 1993).

Anisosticta novemdecimpunctata (L.). Water ladybird. Charlton-All-Saints (MS., 9 Aug 1995); Dinton (SP., n.d.); Marlborough area (Anon 1939. Three examples in College collection without data).

Aphidecta obliterata (L.). Larch ladybird.

Langley Wood (DN., 1974-1986); Marlborough area (Anon 1939. Six examples in the College collection, one labelled *Marlborough 17.7.02*).

Micraspis (Tytthaspis) sedecimpunctata (L.). Sixteen spot ladybird.

Bentley Wood (MD., 27 May 1997); Boscombe Down (MD., 9 Oct 1994. SP., 9 and 12 Aug 1991; 16 Jul 1992); Chiselbury Camp (SP., 14 Jun 1992); Cockey Down (PM., 10 Apr 1991); Dinton (SP., 20 May and 29 Jun 1991); Fovant Down (SP., Jun 1993); Grovely Wood (SP., 6 May 1992); Landford Bog (PM., 18 Jul 1990); Marlborough area (Anon 1939. Three specimens in College collection without data); Martin Down NNR (RB., 21 Aug 1989); Porton Down (JN.); Orcheston Down (SP., 6 May 1991); Salisbury Plain SSSI (SP., 28 Jul 1991; 15 Aug 1992).

Adalia bipunctata (L.). Two spot ladybird.

All Cannings Down (BG., 1 Oct 2000); Bentley Wood (PM., 23 Jul 1990); Berwick St. John (MD., 26 May 1997); Boscombe Down (SP., 1986 -n 1993); Calstone (BG., 9 Jun 1999; 2 Jul 2000); Cockey Down (PM., 7 Aug 1992); Compton Down (30 May 1990); Cranborne Chase SSSI (MS., 24 Apr 1997); Dinton (SP., 1987 -1993); Fonthill (SP., 30 Jun 1991); Fovant (MD., 25 Apr 1995); Hannington (MN., 26 May 1997; 31 Jul 1995; 26 Jul 1995); Highworth (MN., 15 May 1999); Horseshoe Wood (SP., 13 Oct 1991); Jones's Mill (MS., 11 Jun 1997); Langley Wood and Homan's Copse (DN., 1974 -1986); Lockeridge (JO., 1994); Marlborough area (Anon 1939. Five examples in College collection without data); North Draycot Park (MD., 22 May 2000); Salisbury (PM., 1996; MD., 1 May 2000); Salisbury (SP., 13 Jun 1991); Salisbury, Old Sarum (MS., 31 May 1997); Salisbury Plain SSSI (SP., 30 Dec 1990; 27 Aug 1993); Stockton Wood (PH., 28 Sep 1995).

Adalia decempunctata (L.). Ten spot ladybird.

Boscombe Down (SP., 1991-1993); Chilmark (SP., 30 Jul 1990); Cockey Down (PM., 1 May 1990); Cranborne Chase SSSI (EN., 16 Jun 1980; MD., 22 Jun 1999); Dinton (SP., 30 Jul 1990-1992); Fovant (SP., 18 Sep 1993); Great Ridge Wood (MD., 14 Jun 1996); Green Lane Wood (PM., 8 Jul 1992); Gutch Common (SP., 28 Sep 1993); Langley Wood and Homan's Copse (DN., 1974 – 1986); Longleat (AD., 31 Mar 1985); Marlborough area (Anon 1939. Nine examples in College collection without data); Salisbury (MS., Apr 2000); Salisbury Plain SSSI (SP., 30 Dec 1990); Savernake Forest (EN., 31 May 1995; 5 Oct 1995. AF., 22 Jun 1990); Shrewton Folly (SP., 29 May 1994); Stockton Wood (PH., 28 Sep 1995); Porton Down (JN); Wardour (MD., 5 Jun 1996).

Coccinella magnifica (Redtenbacher). Scarce seven spot ladybird. Notable A.

Marlborough area (Anon 1939. No specimen appears over this name in the College collection and this record must, therefore, be considered as doubtful, particularly since no colonies of the wood ant *Formica rufa* are known at the present time in that area) Whaddon Common, Salisbury (DN., 22 July 1973). See below.

Coccinella quinquepunctata L.. Five spot ladybird. Rare RDB3.

Marlborough College (Anon 1939. A single specimen without data, captured between 1873 and 1895 according to the *Handlist*, appears over this name in the College collection but may not be the specimen referred to). See below.

Coccinella septempunctata L.. Seven spot ladybird.

Avis Meadow (BG., 5 Jul 1998); Bentley Wood (PM., 25 Mar 1990; JN., 1997; MD., 31 May 1996); Bishopstone (MD., 7 May 1989); Biss Wood (BG., 15 Aug 2000); Blackmoor Copse (BG., 2 Jun 1986. MD., 31 May 1996); Boscombe Down (MD., 9 Oct 1994); Bromham (BG., 7 Jun 1986); Calstone Down (BG., 2 Jul 2000); Chisenbury Warren, Salisbury Plain (BG., 21 Jun 1986); Cockey Down (PM., 1 May 1990); Coombe Bissett Down (MD., 1 APR 1997); Cranborne Chase SSSI (EN., 16 Jun 1980) Dinton (MD., 21 Jul 1995); Distillery Meadows (SP., 9 Jun 1991); Fonthill (MD., 19 Jul 1995); Great Ridge Wood (MD., 4 May 2000); Green Lane Wood (MD., 7 Jun 1995; PM., 8 Jul 1992); Hannington (MN., 26 May 1997; 26 and 31 Jul 1995); Imber, Salisbury Plain (BG., 6 May 2000); Landford Bog (SP., 1991); Langley Wood and Homan's Copse (DN., 1974 - 1986); Little Durnford Down (PM., 1990); Lockeridge (JO., 1994); Longleat, Nockett's Coppice (PM., 1993); Marlborough (Anon, 1935. Five specimens in College collection none with data. IO., 1994); Middleton Down (BL., 24 Apr 1989; 24 Apr 1990; 23 May 1994. MD., 21 May 1995); Oyster's Coppice (SP., 1993); Parsonage Down (BG., 26 May 1986; 30 Aug 1998); Pepperbox Hill SNCI (PM., 9 May 1993); Pewsey Downs SSSI (AF., 22 Jun 1990); Porton Down (JN.); Salisbury (MD., 13 Apr 2000); Roundway (BG., May 1986; 5 May 2000); Rowdeford (BG., 22 May 1986); Savernake Forest (EN., 31 May 1995; 27 Oct 1995; AF., 22 Jun 1990); Stanton St. Bernard (BG., 19 Jun 1986); Stockton Wood (PH., 28 Sep 1995); Sutton Mandeville (MD., 7 Jul 1996); Wardour (MD., 5 Jun 1996); Wilton (MD., 12 May 1997). In addition there are 30 records from SP. with map references only.

Coccinella undecimpunctata L.. Eleven spot ladybird.

Boscombe Down (M.Stone, 8 Feb 1993); Marlborough area (Anon 1939. Six specimens in College collection none with data); Martin Down NNR (RB., 21 Aug 1989); Roundway Camp (FB., Jul 1940); Salisbury (PM., 24 Jul 1992); Stockton Wood (PH., Sep 1995); Winterslow (PM., 19 Aug 1990).

Harmonia quadripunctata (Pontoppidan). Creamstreaked ladybird.

Boscombe Down (M.Stone, 20 Jul 1990); Little Durnford Down (PM., 18 Mar 1991).

Propylea quattuordecimpunctata (L.). Fourteen spot ladybird.

Bentley Wood (PM., 25 Mar 1990; 28 Jun 1990; 1 AUG 1990. MD., 31 MAY 1996. SP., 1991); Broadchalke (BL., 23 May 1994); Chickengrove Bottom (MD., 17 Jul 1995. PM., 21 May 1993); Cockey Down (PM., 1 May 1990); Cranborne Chase SSSI (MS., 24 Apr 1997); Devizes (BG., 6 May 2000); Dinton (MD., 21 Jul 1995); Fonthill (MD., 19 Jul 1995); Great Ridger Wood (MD., 14 Jun 1996); Green Lane Wood (MD., 7 Jun 1995. PM., 8 JUL 1992); Grovely Wood (MD., 11 and 12 Jun 2000. MS., 19 Aug 1995); Hannington (MN., 26 and 31 Jul 1995; 26 May 1997); Landford Bog (SP., 1991); Langley Wood and Homans Copse (DN., 1974-1986); Little Durnford Down (PM., 1990); Lockeridge (JO., 1994); Longleat, Nockatt's Coppice (PM., 1993); Marlborough (JO., 1994); Marlborough area (Anon 1939. Five specimens in College collection one labelled Ramsbury 2.9.02 and one Sav[ernake] For[est] 21.6.02); Middleton Down (BL., 1 Aug 1992; 23 May 1994. MD., 21 May 1995); Pepperbox Hill SNCI (PM., 9 May 1993); Red Lodge Plantation (BG., 9 May 2000); Roundway (BG., 13 May 2000); Salisbury (MD., 1 Jun 2000); Savernake Forest (AF., 22 Jun 1990); Stockton Wood (PH., 28 Sep 1995); Sutton Mandeville (MD., 7 Jul 1996); Vernditch Chase (MD., 17 Jul 1995); Wardour (MS., 5 Jun 1996. MD., 5 Jun 1996); Wilton (MD., 12 May 1997). In addition there are 17 records from SP. with map references alone.

Anatis ocellata (L.). Eyed ladybird.

Bentley Wood (PM., 3 Sep 1990. MD., 31 May 1996; 27 May 1997); Cranborne Chase SSSI (EN., 16 Jun 1980); Dinton (24 Aug 1990); Hursley Bottom (IG., 8 Sep 1999 and in previous years); Longleat, Centre Parks (PM., 1995; 8 Jun 1996); Marlborough area (Anon 1939. Two specimens in College collection one labelled *Sav*[ernake] *EEM 18.4.05*); Oysters Coppice (LB., 9 Jan 1993); Roundway (BG., 27 Apr 2000); Sutton Mandeville (MD., 21 May 1998).

Calvia quattuordecimguttata (L.) Cream-spot ladybird. Alderbury (SP., 15 Oct 1993); Asserton (BL., 4 May 1998); Bentley Wood (PM., 28 Jun 1990); Blackmoor Copse (PM., 10 Nov 1992); Boscombe Down (MD., 9 Oct 1994); Chickengrove Bottom (PM., APR 1992); Cranborne Chase (MS., 24 Apr 1997. EN., 16 Jun 1980); Dinton (MD.,9 Jul 1995. SP., 18 Apr 1990; 8 Aug 1991); Figsbury Ring (PM., 28 Apr 1991) Great Ridge Wood (MD., 2 May 2000); Green Lane Wood (PM., 8 Jul 1992); Grovely Wopod (SP., 22 May 1991); Jones's Mill (MS., 11 Jun 1997); Marlborough area (Anon 1939. Two specimens in College collection without data); Middleton Down (MD., 21 May 1995); Salisbury, Old Sarum (MS., 31 May 1997); Porton Down (J.Walker 1993).

Myrrha octodecimguttata (L.). Eighteen spot ladybird. Bedwyn Brail (Anon 1939. Two specimens in College collection without data); Boscombe Down (SP., 4 May 1990)

Myzia oblongoguttata (L.) Striped ladybird. Tidcombe (Anon 1939. One specimen in College collection with data: *Tidcombe, HWD, 24.5.02*).

Halyzia sedecimguttata (L.). Orange ladybird.

Bentley Wood (SP., 21 Jul 1990. PM., 25 Mar 1990; 1 Aug 1990; 27 Mar 1991); Blackmoor Copse SSSI (PM., 31 May 1993); Boscombe Down (MD., 9 Oct 1994); Devizes (BG., 10 Jun 1999); Dinton (SP., 1990-1993); Franchises Wood (MS., 3 May 1995); Great Ridge Wood (MD., 16 May 2000); Green Lane Wood (WANHS., 7 Jun 1995); Grovely Wood (SP., 24 Jun 1988, 12 Oct 1990); Jones's Mill (MD., 21 Jun 1997); Langley Wood and Hom (DN., 1974 – 1986); Little Durnford Down (PM., 19 Jul 1990; 25 Mar 1991); Little Langford (PM., 3 Jul 1991. SP., 4 Jul 1991); Longleat, Centre Parks (SP., 30 Jun 1993); Longleat, Nockatt's Coppice (PM., 1993); Marlborough area (Anon 1939. Three specimens in College collection without data); Porton Down (PM., 20 Aug 1994. PP., 3 Jul 1999. JN.); Roundway (BG., 16 Dec 1994; 7 Aug 1996); Salisbury Plain SSSI (SP., 9 Oct 1993); Wardour (MD., 5 Jun 1996); MS., 5 Jun 1996); Winterslow (PM., 13 Jul 1990).

Psyllobora vigintiduopunctata (L.). Twenty two spot ladybird

Boscombe Down (SP., 1990-1992); Broadchalke (SP., 19 Sep 1991);Cockey Down (PM., 1988); Dinton (SP., 14 Apr 1987; 20 Ju7l 1990, 1991); Hannington (MN., 26 Jul 1995); Keevil (BG., 6 Oct 2000); Lockeridge (JO., 1994); Marlborough area including Hat Gate(Anon 1939. Seven specimens in College collection without data); Salisbury Plain SSSI (SP., 11 Aug 1990; 27 May 1991; 31 May 1992; 27 Aug 1993; 4 Sep 1993); Salisbury (MD., 1 Jun 2000); Winterslow (PM., 2 Sep 1990).

Indications of rarity are taken from Hyman, P.S. and Parsons, M.S. (1992,1994).

Abbreviations: Anon, 1939 (see bibliography); LB: Leslie Balf; RB: Roger Booth; FB: F.Buck; MD: Michael Darby; AD: Andrew Duff; AF: Adrian Fowles; BG: Beatrice Gillam; IG: Ian Gray; PH: Peter Hodge; BL: Barbara Last; PM: Piers Mobsby; DN: David Nash; EN: English Nature; MN: Michael New; JN: John Notman; JO: Jack Oliver; SP: Stephen Palmer; PP: P.M.Pavett; MS: Michael Salmon.

Note: Stephen Palmer's records are those submitted to the National Ladybird Survey.

SPECIES NOT RECORDED FROM WILTSHIRE

Hippodamia tredecimpunctata (L). Thirteen spot ladybird. An immigrant from the continent, and most records, all of which are old, have been close to the south coast. Majerus, M.N., Forge, H., and Walker, L., 1990, express the view that although the beetle was probably extinct in Britain at the time they were writing, it might very well establish itself here in the future.

Coccinella hieroglyphica L. Hieroglyphic ladybird. Confined to heather heathland and only likely to be found, if at all, in the far south of the county. Adonia variegata (Goeze). Adonis ladybird. Mainly a coastal species but also occurs inland on well drained, often sandy soils and may exist in Wiltshire. It has been found on a variety of plants in heathland, grassland, parkland, riverbanks and waste ground. Notable B. See comment above on variation in spot numbers.

In addition to these are several other species which have been found from time to time in Britain but are not thought to be breeding here. Most form part of the large body of continental ladybirds some of which may well establish themselves in the future as a result of climate change.

STATUS OF THE HEATHER AND FIVE SPOT LADYBIRD RECORDS

The presence of the heather and five spot ladybirds in the county list rests solely on their inclusion in the accounts of Coleoptera published in the annual *Report of the Marlborough College Natural History Society* (summarised in Anon., 1939). The heather ladybird first appears in 1874 and the five spot in 1895. No data are given with the first but the second is attributed to 'A.G.J[ebb] 1 on nettles, Pewsey Road' (no date is given).

Both ladybirds also have very specific habitat requirements: heather heathland and unstable river shingle respectively. Given the absence of these, too, in the Marlborough area at the present time, and the ease of confusing both species with other, more common, ladybirds, it was assumed that these records resulted from misidentifications. The fact that the record of the five spot would have been, in 1895, one of the first for England, but that this was not mentioned in the *Report*, further indicated a lack of knowledge about the species. Inspection of both specimens in the College collection, however, showed them to be correctly identified although neither had any data attached.

Further searching in the collection revealed the presence of singleton specimens without any attached data representing a further eight species of Coccinellidae, including the hieroglyphic ladybird, not published in the *Reports* (together with a large number of other species in different families), and these omissions were presumed to result from the specimens not having been found in the Marlborough area. The distinctive setting style of the insects concerned, utilising small cards and short pins, is very similar to that of the heather and five spot ladybirds. Furthermore, it was noted that many are rare and some, like those in the Coccinellid genus *Scymnus* and others among the small Staphylinidae, for example, very difficult for the amateur to identify.

It is known that the College collection was supplemented from other sources, and that one of the donors of specimens was Edward Caldwell Rye (1832-1885), the well known London-based Coleopterist. Rye's expertise was considerable. He not only wrote a book, *British Beetles*, 1863 (republished in 1890 after bringing up to date by W.W.Fowler) but also published more than two hundred articles on the British fauna, many bringing forward new species in 'difficult' groups. It is possible, therefore, that these singleton specimens were his.

Against this argument, at least in the case of the five spot, is the fact that none of Rye's publications mention its capture. Enquiries at the Bolton Museum, where his collection is housed (as part of the Philip Mason Collection), have failed to locate any further specimens (or any information relating to the Marlborough material although building works, which will not be completed for some time, have prevented a complete search). Of course, if the insect was taken in one of its recorded Scottish habitats, he may not have considered publication worthwhile anyway.

Additionally, one must also bear in mind that although the five spot has only been recorded in numbers from Wales and Scotland, there have been three records in recent years of singletons from South Dorset, Warwickshire and Cornwall, all now thought to be vagrants. (Majerus, M.E.N., and Fowles, A.P., 1989).

Many of these remarks referring to Rye's possible involvement, also apply to the heather ladybird, the status of which must be considered doubtful, too, until further specimens have been found. In this case a search of the heather heathland in the south of the county could well prove fruitful.

ACKOWLEDGEMENTS

I am very grateful to Dr Jack Oliver for advice about the absence of wood ants in the Marlborough area; Dee Adcock for finding a copy of Majerus, M.E.N., 1994, for me; and to the authorities at Marlborough College for permitting me to borrow the collection of Coleoptera for study.

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An Anglo-Saxon Decapitation and Burial at Stonehenge

by Mike Pitts¹, Alex Bayliss², Jacqueline McKinley³, Anthea Boylston⁴, Paul Budd⁵, Jane Evans⁶, Carolyn Chenery⁶, Andrew Reynolds⁷ and Sarah Semple⁸

Most of a human skeleton excavated at Stonehenge in 1923, believed destroyed in the London bombing of 1941, was re-located in 1999. New study of the bones shows them to represent a man of Anglo-Saxon era (not Neolithic or Roman as previously suggested) aged 28-32, born in central southern England. He had been beheaded, probably with a sword. The historical context for this incident is discussed.

The re-discovery in 1999 and preliminary examination of a human skeleton from Stonehenge were reported widely in the media, following a press conference at English Heritage's London headquarters on 9th June 2000, and a further press release (at which the first of two radiocarbon dates was announced) on 14th July. The background to these events, and the making of a television film, are described elsewhere (Pitts 2001). Here we put on record full details of the research.

ARCHAEOLOGY by Mike Pitts

Skeleton 4.10.4 (the number allocated in 1938 by the Royal College of Surgeons of England) was recovered by William Hawley. He came across the grave by chance during the course of the largest excavation programme at Stonehenge, conducted between 1919 and 1926 (Cleal *et al.* 1995). It is one of three more or less complete human skeletons found by Hawley at Stonehenge (Figure 1). All three were thought lost. The first (found March 1922 in the ring ditch) was discarded by the excavator, who felt (on debatable evidence) that 'obviously it was a modern interment' (Hawley 1923, 18). 4.10.4, found November 1923 and the third, inside the stone circles on the central axis, in August 1926, were taken to the Royal College of Surgeons, London. The College was bombed in 1941, and its contents, including many human remains recovered in British excavations, were believed (at least by archaeologists) totally destroyed (Pitts 1999).

Human remains are common at Stonehenge: 77 find contexts are definitely prehistoric (Phases 1-3); 67 may be more recent ('Phase 3 or later' or unphased) (McKinley 1995, Tables 57-8). In addition, a human tarsal was found near the Heelstone in a context containing a medieval sherd (Pitts 1982, 90). Many prehistoric cremation burials have also been excavated, mostly in or close to the ring ditch. Perhaps as many as 50 of these are now reburied in Aubrey Hole 7 (Pitts 2001, xiii and chapter 15).

But only one other articulated skeleton has been found, in the ditch in 1978 (Figure 1). The man

¹ 125 High St, Marlborough, SN8 1LU; ² English Heritage, 23 Savile Row, London, W1X 2HE; ³Wessex Archaeology, Portway House, Old Sarum Park, Salisbury, SP4 6EB; ⁴ Department of Archaeological Sciences, University of Bradford, BD7 1DP; ⁵ Department of Archaeology, University of Durham, South Road, Durham, DH1 3LE; ⁶ NERC Isotope Geosciences Laboratory, British Geological Survey, Keyworth, Nottingham, NG12 5GG; ⁷ Department of Archaeology, King Alfred's College, Winchester, SO22 4NR; ⁸ Institute of Archaeology, University of Oxford, 36 Beaumont Street, Oxford, OX1 2PG

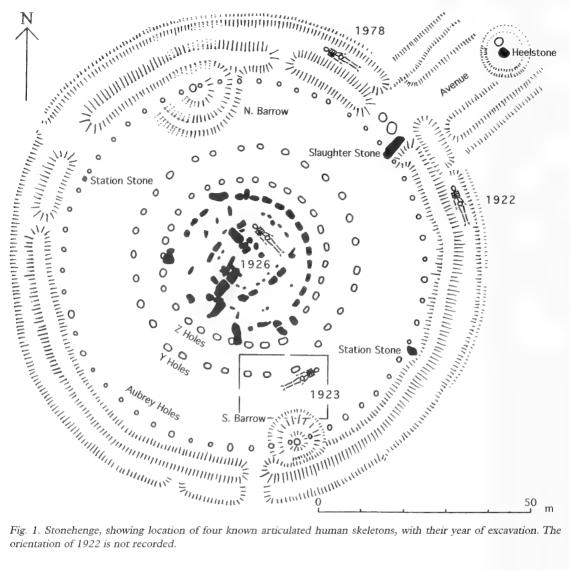


Fig. 1. Stonehenge, showing location of four known articulated human skeletons, with their year of excavation. The orientation of 1922 is not recorded.

apparently died from the impact of at least four flint-tipped arrows, around 2300 cal BC (Evans et al. 1984; Pitts 2001, chapter 14). This was the only directly dated human bone from Stonehenge, apart from a cremation burial shown to pre-date 2000 cal BC in an early analysis (Cleal et al. 1995, 519). The 1926 skeleton remains unlocated (it may have been returned to Hawley: Pitts 2001, 302 and footnote 638), and the 1922 one is presumably somewhere in the ground.

Received date

In 1999 burial 4.10.4 was thought Neolithic, or possibly Roman. Hawley initially believed it Neolithic, because the grave fill, which he 'sifted', contained no artefacts or stone fragments. He had identified a 'Stonehenge Layer' of debris from megalith dressing which blanketed most of the site. Anything found beneath this 'layer' he ascribed to a pre-Stonehenge date (Hawley 1920-26, 2-3 November).

Arthur Keith (Royal College of Surgeons) proposed the burial was Roman, 'or more probably [from] the centuries immediately preceding' this era, on the evidence of skull shape. Hawley accepted this judgement without comment (Hawley 1925, 31-3), as he did Keith's identification of the individual as male: Hawley had earlier written in the diary (until the rediscovery, the most complete description) that it was female. Keith's full report (perhaps no more than a letter) does not appear to have survived.

Richard Atkinson, whose book was the key published source for Stonehenge archaeology in the second half of the last century, favoured a later date. He was influenced by the nature of the grave: 'the [body's] extended attitude (if such it was) and the somewhat perfunctory disposal ... point to a date not earlier than the Romano-British period' (Atkinson 1979, 62). In the recent detailed Stonehenge report, the authors reverted to Hawley's original argument. The lack of debris in the grave fill pointed to an early date in the site's history, 'before the interior became littered with stone fragments' (Cleal *et al.* 1995, 267-8).

Rediscovery

Pursuing a trail created by Wessex Archaeology (who had prepared the recent monograph: Cleal *et al.* 1995), I found that much of the Royal College of Surgeons' ancient human remains collection (from perhaps as many as 800 individuals) had survived the 1941 bombing. Recovered items had been driven out to country houses around London. After the war they had come back, eventually to be sorted and, in the case of the archaeological human bones, given to the Natural History Museum (4.10.4's post-cranial remains in 1948, the skull in 1955). There are many other items of interest to archaeology in this collection, not least the medieval 'barber-surgeon' from Avebury (Pitts 2001, chapters 16 and 30).

Unknown to archaeologists, skeleton 4.10.4 had already been 'discovered' in 1975. Wystan Peach, a Welsh dentist who believed the remains were of King Arthur, paid for a radiocarbon date (see below). Some of the details of this date emerged during the production of the television film, when we interviewed Penrhyn Peach about his late father's work.

W. Peach submitted a paper to Antiquity in August 1977 (4.10.4 had been dated the year before). We have not been able to find a copy of this paper, which was rejected by the editor. Peach had earlier described his ideas in a privately published booklet (Peach 1961). He believed Arthur, the architect of Stonehenge, was alive in 1800 BC (then thought to be the construction date). This suggestion derived from an eccentric reading of the Mabinogion, a collection of medieval Welsh tales (Pitts 2001, chapter 30). I brought Jacqueline McKinley, who had recently completed an analysis of all surviving human remains from Stonehenge (McKinley 1995), to see the skeleton. She identified the lesions in the cervical vertebra. Anthea Boylston kindly later conducted a fuller examination. (The full sequence of events from excavation to examination is described at www.hengeworld.co.uk/news.html).

The grave

Hawley and assistant Robert Newall left both a written description of the excavation and a section drawing of the pit, making 4.10.4's grave one of the better recorded Stonehenge features (Figure 2). The published report (Hawley 1925, 31-3) briefly summarises the field diary (1920-26, November 2-3, 6).

Hawley found the grave with a workman named Player on a Friday, and it was excavated by Hawley and Newall the next day. Much of the diary entry is devoted to the bones (confirming identification of 4.10.4 with the skeleton in this grave). The pit 'was very roughly cut and only sufficiently cut in the solid chalk [26 inches/66 cm 'below ground level'] to contain the trunk of the body'. It was also 'insufficiently long [64 inches/1.63 m] so that the neck and shoulders had to be forced into a curve and pressure seems to have been exerted upon the pictoral [sic] portion as all the ribs were contracted and forced together and all were in a broken state with the exception of two'. The skull, too, was in poor condition, 'from being near the surface [16 inches/40 cm 'below ground level'] and also from pressure exerted upon it'. Measurement of the skeleton (see below) confirms that the man was probably slightly too tall to fit comfortably in the pit.

Other measurements recorded are the pit's 'width at upper end' (24 inches/61 cm) and 'at lower end' (17 inches/43 cm), probably the ends containing head and feet, respectively. The 'direction of the grave was towards ENE', which might imply that the head was at the easterly end. The grave fill is described as 'earthy chalk ... much compacted by pressure and of quite a different nature to the loose stuff filling the [adjacent] post holes', and 'hardened chalk ... returned to the grave'. This fill 'contained nothing'; a footnote in the diary states that 'contents of grave [were] sifted without any result'. Over the fill ('upon the hardened upper surface') was 'loose chalky earth of a later period which contained 3 pieces of rhyolite and 1 of

quartzite and there were several large natural flints about . . . The grave was so shallow that . . . the Stonehenge stratum was only $1\frac{1}{2}$ inch [4 cm] above [the skull] ending at $14\frac{1}{2}$ inch BGL [37 cm 'below ground level']'. These measurements fit the observation (above) that the skull was 16 inches 'below ground level'. The latter is thought to be the modern turf level (Cleal *et al.* 1995, 16).

As noted above, Hawley and Cleal *et al.* argued from the absence of stone fragments in the pit, and the overlying 'Stonehenge layer' (albeit apparently containing only four stone pieces) that the grave was 'pre-Stonehenge'. The simplest way of accommodating this with the much later radiocarbon date for the skeleton, is to note that the grave fill seems to have been almost pure chalk, presumably thrown straight back into the pit at the time of its creation: there is no necessary reason for any extraneous material to have joined the backfill.

The grave was close to Early Bronze AgeY Hole 9, but apparently not intersecting it (Figure 2). There were also post holes in the area, two with direct relationships with the grave pit. Unfortunately, it is not now possible to be certain what those were, although Hawley apparently thought grave succeeded post holes. The pit 'was cut between 2 post holes which were included in it and their circular sides remain at the ends of the grave'. This is held to explain the short length of the grave, the excavators being 'unwilling to extend it beyond the limits of the post holes'. A further somewhat ambiguous remark seems to corroborate this: 'Those who dug the post hole came upon a very large flint at the top end and as they [excavators of post hole or grave?] were unable to remove it by battering it they [grave diggers] left the grave shorter than they otherwise would have done'.

From other diary entries, it appears that Hawley's notions of stratigraphic sequences, and his use of a word like 'cut' (as in one feature cutting through another) were quite flexible. He gives no clear evidence for relationships between post holes and pit. However, by itself the plan suggests these features might have been contemporary, and it is possible the grave was marked by a small post at each end. The pit is aligned with a row of post holes to the east (Figure 2): this, too, could be post-Roman in date, not Neolithic, as conventionally assumed in the absence of dating evidence. Re-excavation of the area might throw further light on this.

In summary, the man was buried, in what appears to have been an isolated incident, in a shallow pit not quite long enough to accommodate his unconstrained corpse. The pit was aligned east north-east/west south-west (approximately tangential to the stone circles at that point), with the head probably at the easterly end. The grave was sited on the south-east side of the stone circles, facing Amesbury (invisible behind the downs). There is no record of which way up the body lay, but it can be assumed that had it been prone (face down) this would have been noted. The grave fill consisted of the excavated chalk, packed down hard over the body. There may have been a post standing at each end. No artefacts were found with the skeleton.

RADIOCARBON DATES by Alex Bayliss

In 1975 two leg bone shafts were sent to Harwell A.E.R.E. for radiocarbon analysis. Peach's manuscripts record the result as 1190 ± 80 BP, but no further data are available (such as laboratory number). Peach noted 'it was felt that insufficient bone was submitted and the bone had been treated. No further bone was submitted and the bone sample was used' (undated lecture typescript). This result cannot now be used for dating purposes.

New samples (10 gm each) were processed as outlined in Bronk Ramsey *et al.* 2000 and measured using accelerator mass spectrometry (Bronk Ramsey and Hedges 1997). The two measurements are not statistically significantly different (T'=3.4; T'(5%)=3.8; v=1) and so a weighted mean can be taken before calibration (Ward and Wilson 1978). The results are expressed as conventional radiocarbon ages (Stuiver and Polach 1977).

The calibrated date range for the weighted mean has been calculated using OxCal v3.5 (Bronk Ramsey 1995), the maximum intercept method of Stuiver and Reimer (1986), and the dataset of Stuiver *et al.* (1998). The range has been rounded outwards to 10 years.

Table 1. Radiocarbon dates for skeleton 4.10.4

Laboratory Number	Radiocarbon Age (BP)	s13C (‰)	s15N (‰)	C:N Ratio	Weighted Mean (BP)	Calibrated range (2s)
OxA-9361	1359±38	-19.7	7.6	3.2	1397±32	cal AD 600–690
OxA-9921	1490 ± 60	-19.5	8.1	3.3		

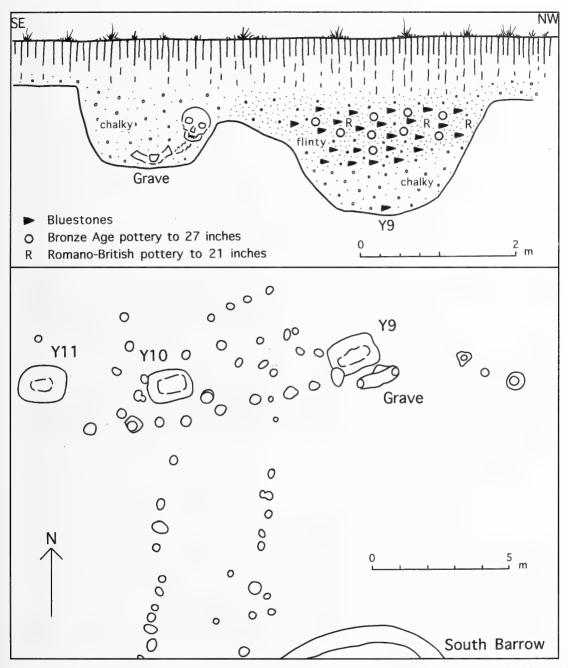


Fig. 2. Newall's schematic section drawing of the grave pit (top) and the surrounding area as planned by the Office of Works (redrawn from originals). Comments by Hawley suggest that not all excavated post holes were recorded (Pitts 2001, footnote 259). See Figure 1 for plan location.

The stable isotope values are consistent with a very largely terrestrial diet, with only a minor component of marine protein (Chisholm *et al.* 1982; Mays 2000). The C:N ratios suggest that bone

preservation was sufficiently good to have confidence in the radiocarbon determinations (Masters 1987; Tuross *et al.* 1988).

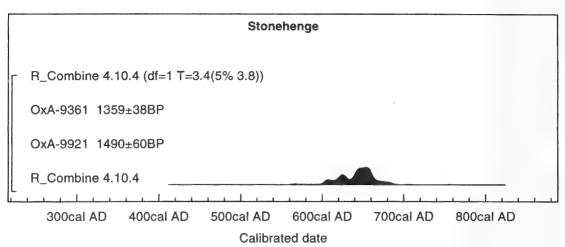


Fig. 3. Probability distribution for date of Stonehenge skeleton 4.10.4.

THE SKELETON by Jacqueline I. McKinley and Anthea Boylston

The initial identification of the traumatic spinal lesions was made by Jacqueline McKinley during informal examination of the skeletal remains, a full examination later being undertaken by Anthea Boylston (see above). The results presented here were compiled by the former from the data collected by the latter and observations made by both writers.

Methods

Age was assessed from the stage of skeletal and tooth development (Beek 1983; McMinn and Hutchings 1985) and the general degree of age-related changes to the bone (Brooks and Suchey 1990; Buikstra and Ubelaker 1994). Sex was ascertained from the sexually dimorphic traits of the skeleton (Buikstra and Ubelaker 1994). Cranial index was calculated according to Brothwell (1972), stature estimations according to Trotter and Gleser (1952; 1958).

Results

The bone was in good condition, though there had been some damage – with subsequent reconstruction – to the skull and the pelvic bones, and all the bone had been coated with some form of varnish. The mid-shaft region of the right tibia and left femur had been removed for radiocarbon dating in 1975 and replaced by plaster casts.

About 90% of the skeleton was present for examination (hand and foot bones, and the ribs were missing), the remains representing those of an adult male of about 28-32 years. The stature of the individual was estimated at 1.65m (c. 5ft 4 1/2inches). This places him within the range, but below the average, observed within a number of Romano-British and Early Anglo-Saxon phase cemeteries in the south-west region: averages include 1.66m at Poundbury (Molleson 1993, 167-168), 1.69 at Tolpuddle Ball (McKinley 1999) and 1.71 at Ulwell (Waldron 1988) all in Dorset, and 1.67 at Boscombe Down, Wiltshire (McKinley forthcoming). The cranial index is 72.7, which is within the dolichocranial (long-headed) range. Whilst it has been observed that there was an increasing trend towards long-headedness within the Anglo-Saxon period (Marlow 1992); c. 42% of the individuals from the Romano-British cemetery at Boscombe Down, Amesbury, about 2km to the east, also fell within this range, though the mean index was higher at 76.

The man had slight osteophytes (marginal new bone) in the 7th-10th thoracic vertebrae and Schmorl's nodes (defects in the vertebral body surface resulting from disc damage) in the 8th-9th thoracic, a not unusual observation at a time when most individuals endured physically active lives. The muscle insertions for upper limb - *pectoralis major*, *latissimus dorsi* – indicate strong attachments and possible minor strains, again suggestive of strong physical activity involving the upper body. There is anterior curvature in the right femur and both fibulae have curved medial shafts with flattened distal ends at different angle to shafts. Slight periosteal new bone on the posterior surface of the right femur and medial surface of the right tibia is indicative of non-specific infection in the membranes covering the bone. The mandible was squared at the angles and mental protuberance (chin), and the individual had a pronounced overbite.

The decapitation

The man had been decapitated, the head apparently being removed via a single blow from the rear-right side, cutting through the fourth cervical vertebra (Figure 4) and clipping the left mandible in the inferior-posterior aspect of the ramus (i.e. the part

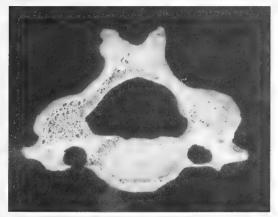


Fig. 4. Fourth cervical (neck) vertebra from 4.10.4, showing cut surfaces exposing spongy interior. Photo copyright Natural History Museum.

of the mandible nearest the neck, where it anglesup to articulate with the rest of the skull: Figure 5). The single, clean cut must have been made with a sharp, narrow but relatively robust blade, cutting through the right superior portion of the dorsal part of the C4 (the spine of the vertebra), the superior portion of the right articular process and the

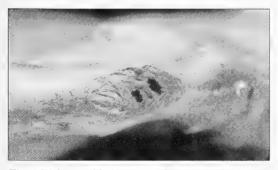


Fig. 5. Right mandibular ramus of 4.10.4 (i.e. back angle of lower jaw). Photo copyright Natural History Museum.

margins of the right lateral-dorsal portion of the body, clipping the left superior articular process and body margins of the superior surface.

The assailant must have been standing behind the victim. Although vertebrae between the second cervical to the first thoracic have been recorded as points of severance in decapitations, the mid-cervical region - as in this case - appears to have been the most common, with occasional trauma to the mandible or occipital vault (back of the head) also being observed. It has been noted that the use of a 'block' - which would help direct the aim, keep the neck straight and limit the movement of the victim's body when struck - invariably leads to a cut at the mid-neck level (Manchester 1983). However, one would not expect to see damage to the mandible in such cases. Variations in methods of execution also include the victim kneeling with the head up, which may also allow for a good aim at the neck but could potentially result in damage to the mandible if the victim dropped the head slightly or they moved forward a little on being struck.

Decapitation has been observed in numerous cemeteries of this date (e.g. Harman *et al.* 1981; McKinley 1993; Boylston 2000) and the reasons suggested for its use have included both execution of defeated enemies or criminals and sacrificial ritual (Wilson 1992). There are several Anglo-Saxon cemeteries which seem likely to have functioned as execution sites – including significantly high percentages of decapitations and prone burials - such as Wor Barrow and Roche Court Down (Harman *et al.* 1981), and South Acre, Norfolk (McKinley 1996), the latter being one of those associated with a Bronze Age barrow (Wymer 1996).

It cannot be assumed that this male was an ethnic Anglo-Saxon. West Wiltshire lay on the margins of Anglo-Saxon occupation at this time (Eagles 2001) and the individual may have been a native Briton.

LOCATING THE EARLY CHILDHOOD RESIDENCE OF THE INDIVIDUAL by Paul Budd, Jane Evans and Carolyn Chenery

A tooth from skeleton 4.10.4 was analysed to see if the man's origins could be pinpointed, using a new technique that considers traces of oxygen, lead and strontium.

Principles

The reconstruction of residential mobility from the analysis of dental enamel is based on systematic natural variations between localities of the isotopes of a number of elements. Lead, strontium and oxygen all have isotopes which vary in this way and can be used for this purpose (Budd *et al.* 1999; in press a; in press c; Montgomery *et al.* 2000). Elements with isotope ratios characteristic of specific environments become incorporated into enamel during tooth formation in childhood. The enamel is highly resistant to change after death and hence retains this early life isotopic 'signature' (Budd *et al.* 2000a).

Strontium has four isotopes, one of which, 87Sr, is derived from the radioactive decay of rubidium over geological time. The concentration of this isotope, measured as a ratio to its non-radiogenic sister 86Sr, depends on both the rubidium content and age of the rock in which it is found. Strontium is taken up by biological systems, but the relative proportions of its isotopes remain unaltered in the process (Blum et al. 2000). As a result, soil, plant and ultimately human enamel strontium isotope ratios all remain closely related to (although not necessarily exactly the same as) those of the hydrology and underlying geology of the region in which the individual lived when the tissue was formed: early childhood in the case of permanent human teeth.

Lead has four stable isotopes, but in this case three (206Pb, 207Pb and 208Pb) are formed by radioactive decay (of uranium and thorium). Therefore geological concentrations of these three isotopes, expressed as ratios to the only nonradiogenic lead isotope, 204Pb, depend on both the parent uranium and thorium contents of the rock or mineralising fluid, and the time since deposition. In pre-metallurgical societies the main source of lead in the diet, like strontium, was from the underlying geology via the food chain. In such cases it is possible to use the lead isotope composition of tooth enamel to comment on place of origin in a manner directly analogous to that of strontium. Later however, and especially in the Roman and medieval periods, ore-derived lead becomes dominant as the source of human exposure as a result of the use of lead metal, its alloys and products (Budd et al. 2000b).

Oxygen isotopes are highly complementary in producing information related to place of childhood residence, but by virtue of climatic rather than geological variation. Unlike lead and strontium, the much lighter isotopes of oxygen are readily altered by biological processes. Fortunately however, mammalian tooth and bone are composed of biological apatite and organic material formed at constant temperature (37°C) so that the oxygen isotope ratio of skeletal phosphate directly relates to that of body fluids and local, meteoric, drinking water (Fricke *et al.* 1995; Levinson *et al.* 1987). A simple calibration is all that is required.

Analysis

The Natural History Museum removed the upper left first premolar and replaced it with a cast. A clean core enamel sample was then extracted for analysis using the methods described by Budd et al. (in press a; c). Lead and strontium isotope ratio analyses and concentration analysis using the isotope dilution method were performed at NIGL by Thermal Ionization Mass Spectrometry (TIMS) using a Finnegan Mat 262 multi-collector mass spectrometer. Errors (all 2s) were calculated from repeat measurements of the international standard for strontium (NBS 987, n=10) and lead (NBS 981, n=16) during the period of analysis. Oxygen isotope sample preparation was carried out at NIGL using the laser fluorination method described by Budd et al. (in press b; c). A V. G. Isotech Optima dual inlet isotope ratio mass spectrometer operating Micromass DI2.47 software was used to determine the enamel oxygen isotope composition d18O. Errors (2s) were calculated by reference to repeat measurements of phosphate mineral standards, NBS 120b (n=6) and NBS 120c (n=2). O-isotope data were calibrated using Levinson et al. (1987). Results appear in Table 2.

Table 2. Analysis of tooth from skeleton 4.10.4

Tooth enamel 206Pb/204Pb isotope ratio: 18.62 ± 0.02 Tooth enamel 207Pb/204Pb isotope ratio: 15.82 ± 0.02 Tooth enamel 208Pb/204Pb isotope ratio: 39.06 ± 0.05 Lead concentration of enamel: 2.2 ± 0.3 ppm

Tooth enamel 87Sr/86Sr isotope ratio: 0.70837 ± 0.00003

- Strontium concentration: 55 ± 5 ppm
- Aqueous leachate of soil from near burial site 87Sr/86Sr isotope ratio: 0.70794

Childhood drinking water d18O value: -7.8 to -7.3‰

The lead isotope values obtained are typical of UK lead ores and suggest, as suspected, that this individual's lead exposure was dominated by orederived lead, presumably from manufactured products. This is confirmed by the relatively high (although not extreme) enamel lead concentration which is broadly comparable to those of modern people, but an order of magnitude higher than prehistoric people living in the same area (Budd et al. 2000b). The lead data are therefore not diagnostic with respect to place of origin, but do suggest that the individual had childhood access to lead-bearing metals or products. The oxygen isotope composition of the enamel is typical of meteoric water falling on the UK, but defines specific parts of it. The oxygen isotope composition of rainwater is normally principally related to latitude, but is distorted into a west to east pattern by Britain's maritime climate and prevailing winds. The values obtained map out a broad band of possible locations running down the centre of the country (Figure 6) (Darling et al. 1999).

The Sr data allow us to refine this picture considerably. The soil strontium isotope measurement is consistent with previously reported data for Cretaceous chalk geology from southern England (Budd et al. in press c; Montgomery et al. 2000). The low tooth enamel 87Sr/86Sr ratio is within a range (<0.7085) more-or-less restricted in the UK to areas of Cretaceous chalk geology of which the main outcrops occur in southern England and the Yorkshire Wolds (Figure 6). Combining the oxygen and strontium data, the zone of overlap defines the only area to meet both criteria. Parts of this are local to Stonehenge although it extends primarily to the north and east of the monument. We conclude that this area (dark shaded in Figure 6) is the most likely place of early childhood residence for this individual.

HISTORICAL CONTEXT by Andrew Reynolds and Sarah Semple

Central southern England in the 7th century is characterised by dynamic political activity in terms of the formation of the kingdom of Wessex (Yorke 1995, 52-93). Christianity became established during the course of the 7th century and a series of further cultural transformations relating to burial practices, settlement patterns and types, and social



Fig. 6. Map of the UK with isobaric contours showing the range of oxygen isotope composition for modern meteoric water (after Darling et al. 1999). The broad shaded band shows the area over which present day meteoric water has an O-isotope composition ($d^{18}O_{SMOW}$) in the range -7.8‰ and -7.3‰. This is the composition of childhood drinking water for the individual investigated, calculated from the tooth enamel composition. The map also shows (light shading) the approximate extent of surface geology yielding ⁸⁷Sr/⁸⁶Sr values of less than 0.7084. This is essentially confined to the Cretaceous chalk of southern England and eastern Yorkshire. The area of overlap, represented by dark shading to the north and east of Stonehenge, is the most likely area of childhood residency for 4.10.4.

organisation can be observed. Overall, the archaeological and historical records bear witness to the emergence of ruling élites and an increasingly hierarchical ordering of society as a whole.

The Stonehenge burial makes a further contribution to our understanding of early medieval political and administrative history, particularly the development of liminal burial for the socially excluded. Before the conversion of the Anglo-Saxons to Christianity during the 7th to early 8th centuries AD, peculiar burials, often prone or decapitated, are found almost without exception in communal burial grounds (Reynolds in preparation). A survey of Early Anglo-Saxon burials from Wiltshire reveals only one prone burial, from the Blacknall Field cemetery near Pewsey (B. Eagles pers. comm.), whilst, apart from the Stonehenge example, decapitations are not recorded from the county between the 5th and 7th centuries.

The rarity of deviant burials in Wiltshire may be partly a function of the limited number of excavated 5th-7th century AD cemeteries. In regions where more Early Anglo-Saxon cemeteries are known, the figures rise accordingly. In adjoining counties there are three prone burials from Abingdon (Oxon), one from Frilford (Oxon), four from Lechlade (Gloucestershire), one from Droxford and two from Worthy Park (Hampshire) and three from Camerton (Somerset) (Leeds and Harden 1936, 31, 36, 40-1; Rolleston 1869, 437, 477; Boyle et al. 1998, Aldsworth 1979, 114; Hawkes and Wells 1975, 118; Horne 1933, 55, 63). Decapitations from adjoining counties are limited to four examples from Hampshire, one each from Alton and Andover (Portway) and two from Winnall (Evison 1988, 29; Cooke and Dacre 1985, 29, 56; Meaney and Hawkes 1970, 12, 14). The scarcity of decapitation relative to prone burial can be seen nationally: eighty-eight prone burials contrast with forty-four examples of decapitation (Reynolds in prep.). Where dateable, both prone and decapitation burials in Early Anglo-Saxon cemeteries are overwhelmingly of the 6th or 7th centuries AD. The Stonehenge decapitation, then, should be viewed in a context of pre-existing practice, apparently part of an increasing desire to mark deviant status through burial rite leading up to and during the conversion period.

Throughout the 7th century single burials are mostly rare high-status interments in mounds, as at Taplow, Buckinghamshire, Asthall, Oxfordshire and Roundway Down and Swallowcliffe Down, Wiltshire (Geake 1997, 146; Dickinson and Speake 1992; Semple and Williams 2001; Speake 1989). These barrow burials are seen to reflect the emergence of powerful élites and the formation of kingdoms with their geographical isolation emphasising a new social order (Welch 1992, 90). Isolated flat graves of late 6th to 7th century date include those of the smith from Tattershall Thorpe, Lincolnshire and the high-status female from Winthorpe Road, Newark, Nottinghamshire (Hinton 2000; Samuels and Russell 1998). These two burials are unusual in their own right, and serve

to underline the range and peculiarity encountered in 7th century funerary practice (Geake 1992, 89). The Stonehenge find, however, is one of a very few clearly 'deviant' burials of 7th century date. Other comparable examples vary in character, and include the mutilated skeleton 'O1' found buried in the Neolithic bank barrow inside Maiden Castle, Dorset, dated by radiocarbon to the first half of the 7th century, and the body of a woman found in a well at the Roman town of Mildenhall (Cunetio) in 1949 dated to the 6th century (Brothwell 1971; Meaney 1964, 271-2). Spatial 'otherness' was apparently not limited to those at the very top of the social scale, although it should be remembered that two other skeletons found at Stonehenge remain undated.

Early medieval burial at prehistoric stone settings is unusual but not unprecedented. Cremations and inhumations have been found at Little Rollright, Oxon, (Meaney 1964, 260; Lambrick 1988, figure 9), and a radially-arranged group of inhumations was found at a small stone circle at Yeavering, Northumberland (Hope-Taylor 1977, 95-118). Much more frequent, however, are early medieval burials at prehistoric barrows, hillforts, ring-works and linear ditches (Williams 1997; Semple 1998). Burial at Bronze Age round barrows clearly predominates and sites range from large inhumation cemeteries of the 6th century (e.g. Uncleby, East Yorkshire) to isolated single burials of late 7th century date (e.g. Swallowcliffe Down and Roundway Down).

As well as the stone circles, Stonehenge consists of a circular earthen bank and ditch, single megaliths and mounds. Perhaps the complexity of the monument attracted burial in the 7th century, with the 'barrows' diametrically opposed within the henge providing an additional appeal. It is common for early medieval burial to occur at complexes with a range of prehistoric monuments (e.g. Stanton Harcourt and Dorchester-on-Thames, Oxfordshire).

The reuse of prehistoric monuments for funerary purposes is found as early as the 5th century, becoming widespread by the 7th century. However, despite 9th or even 10th century AD occurrences (e.g. Ogbourne St. Andrew, Wiltshire), the practice is very rare beyond the late 7th and early 8th centuries, with the exception of the formal execution cemeteries of 8th-12th century date (Reynolds 1999, 105-10).

From the 8th century, texts and place-names assist study of changes in funerary practice. Of

particular interest is the emergence of the motif of the burial mound as a haunted place (Semple 1998). In Old English poetic and prose sources, prehistoric monuments are often associated with supernatural entities, such as the god Woden and other monsters, demons and elves. The development of political and mortuary practices between the 8th and 10th centuries involved the use of prehistoric monuments, barrows in particular, as places of execution and disposal of executed criminals. Certain prehistoric monuments thus changed from performing a positive social role, to a negative one, paralleling the move from pre-Christian mortuary practice to Christian burial.

Decapitation and burial

The absence of finds might indicate that the Stonehenge corpse was stripped before burial, although metal dress fittings were apparently not ubiquitous during the 7th century when changes in burial customs led to a marked decline in grave finds in comparison to the 6th century (Owen Crocker 1986, 107). Burial took place in a shallow grave that was too short and with the head placed in on top. The position of the hands is not recorded. but only 20 per cent of decapitations from later Anglo-Saxon execution cemeteries have the hands tied, either behind the back or to the front (Reynolds 1998, 161-2). The forcing of bodies into cramped graves suggests outcast status, with a lack of effort and a degree of contempt evident in the whole process.

Postholes at either end of the grave would be difficult to explain, but it is just possible they held a gallows of two uprights and a cross-beam similar to that depicted in an early 11th century manuscript (BL MS Cotton Claudius BIV, f. 59). Pairs of postholes, presumably gallows settings, have been recognised from middle to late Anglo-Saxon execution cemeteries at South Acre, Norfolk, Stockbridge Down, Hampshire and Sutton Hoo, Suffolk (Wymer 1996; Hill 1937; Carver 1998). Hawley's comment that the circular sides of each of the postholes could be seen at either end of the grave brings to mind comparable features from early Anglo-Saxon (5th-7th century) cemeteries, notably St Peter's, Broadstairs, Kent (Hogarth 1973).

Execution by decapitation was rare in the later Anglo-Saxon period. Beheaded skeletons might be unusual at execution cemeteries (4-12 per cent of all bodies) or, in a minority of cemeteries, the dominant occurrence (56-80 per cent) (Reynolds 1998, 457-8, table 113). The earliest West Saxon laws of King Ine of Wessex (688-725) (Attenborough 1922) prescribe hanging and the striking off of hands and feet for various offences (I 18, 24 and 37). A further clause (I 20) notes that a person 'travelling off the highway' might be slain (OE sleanne); a terminology suited rather better to the sword than the gallows. The earliest explicit reference to decapitation, however, is to be found in the 10th century laws of Edgar (959-975) as a punishment for swearing falsely that livestock were bought in front of witnesses (IV Edgar 11). A series of drawings from Late Anglo-Saxon manuscripts show decapitation scenes and in each case the instrument used is a sword (BL MS Cotton Claudius BIV, f. 38; BL MS Cotton Cleopatra CVIII, f. 16v; BL MS Harley 603, ff, 7v, 19, 59 and 75v).

Archaeology of execution

The Stonehenge execution burial is of especial importance as one of the earliest known located both at a prehistoric monument and in a boundary zone. The execution burials at Sutton Hoo have 7th century origins (Carver 1998), but their relationship to prehistoric remains there is uncertain. Maiden Castle, however, the burial place of the mutilated man noted above, is located on the boundary between the Dorset Domesday Hundreds of Cullifordtree and St George. About thirty execution cemeteries of Middle and Late Anglo-Saxon date are now recognised, and virtually all of these re-use earlier monuments located on hundred or shire boundaries (Reynolds 1999, 108). The hundred itself was a self-contained judicial territory that maintained the various agencies necessary to uphold the law (prisons, courts, places of judicial ordeal, execution sites), at least by the later Anglo-Saxon period.

Other probable execution victims from 8th and 9th century contexts include the two women, one perhaps staked out, found on the Thames foreshore, London, and the woman from Yarnton, Oxfordshire, buried face-down in a ditch close to a contemporary family burial plot (Wroe-Brown 1999, 13; Hey pers. comm.). Execution cemeteries dated from about AD 800 by radiocarbon occur at several sites including Staines, Surrey, and Cambridge (Poulton pers. comm.; Mortimer pers. comm.). A more local example is provided by the bounds of a remarkably detailed land charter of AD 778 for an estate at Little Bedwyn, 30 km north-east of Stonehenge

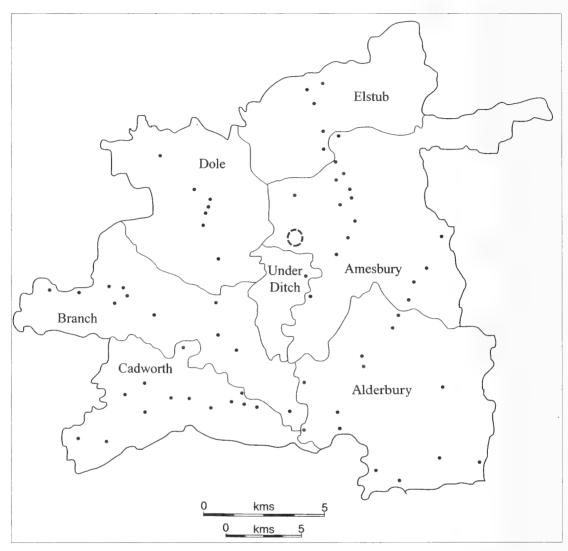


Fig. 7. Stonehenge in relation to boundaries of the Domesday Hundreds of south-east Wiltshire. Black dots show valleybased Domesday settlement pattern.

(Sawyer 1968, cat. no. 264). The Latin boundary clause records the northern edge of the estate (and also that of the Domesday Hundred of Kinwardstone): 'in longum valli progressa in illa antiqua monumenta in locum ubi a ruricolis dicitur. æt ðam holen stypbum. Sicque ad illos gabulos. In longum gemærweges. to wadbeorge...' (and so along the dyke to those ancient monuments to the place the natives call 'at the holly stumps'. and so to the gallows. along boundary way. to woadbarrow...). This early boundary clause thus encapsulates the characteristics of the excavated cemeteries noted above. Between the mid 9th and the 11th centuries, 15 sets of charter bounds record the locations of 12 named burials, demonstrating the continuation of isolated burial from the 7th to the 11th century (Reynolds in press, cat. nos. 52-66).

Landscape context of 4.10.4

The territorial context is of particular interest. Stonehenge lies 800m north of the boundary between the Domesday (1086), and potentially much earlier, hundreds of Amesbury and Underditch (Figure 7). One might suggest a 7thcentury date for the origins of what became hundreds here by or at about the time of the Stonehenge execution. Indeed, the shire and hundredal units of Wessex are generally considered to represent an administrative and political landscape whose origins lie in the 7th century (Yorke 1995, 89-90, 125-6). The eastern boundary of the Domesday Hundred of Underditch is hard to define (Darlington 1955, 180; Jones 1865, 188; Pitt 1999, figure 3; Thorn and Thorn 1979, map; RCHME 1980, xxix). Nevertheless, the various attempts at reconstruction of the hundredal pattern of the region all agree over the position of the hundred's northern boundary with that of Amesbury.

It might be suggested, then, that the Stonehenge execution and burial took place not only at a highly visible place, but also close to the edge of a contemporary territory in a landscape characterised by a range of earlier monuments. Indeed, many of the Bronze Age barrows and linear earthworks around Stonehenge are incorporated into the boundaries of Anglo-Saxon estates and hundredal units. Whether the hundredal units reflect a post-Roman tribal landscape of so-called 'microkingdoms', or an administrative structure planned on a grander scale as early as the 7th century is difficult to judge, but either model allows for the Stonehenge burial to be placed in the context of locally, and probably regionally, recognised political geography.

CONCLUSION

There was nothing in the archaeology or folklore of Stonehenge to suggest that anything like the incident documented here had taken place (Pitts 2001, 308-9; Grinsell 1976). Geoffrey of Monmouth's story, recorded about 1136, that Stonehenge was a memorial to native soldiers killed by Saxon invader Hengist, and subsequently the burial site of Aurelius Ambrosius and Utherpendragon, has been regarded as myth rather than history (Piggott 1941); neither of the last two men is said to have been decapitated.

This is, then, a dramatic case of an apparently simple archaeological find raising important historical questions. It is the oldest indication we have that Stonehenge had significance in recent centuries, at least 440 years before the first written references by Henry of Huntingdon and Geoffrey of Monmouth in the 1130s. Previously only the name itself (one possible derivation being from Old English for stone gallows) testified to earlier interest (Chippindale 1994, chapter 1). Equally it is clear that archaeological information will be instrumental in any further understanding of the man's death, both from judicial or sacrificial execution grounds and other burial locations, and from Stonehenge itself. It is remarkable that conclusive evidence for a decapitation and burial at Stonehenge in the 7th century AD should have survived nearly 80 years only now to have been recognised. There could hardly be greater indication of the importance of excavation archives.

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Excavations in 1999 on Land Adjacent to Wayside Farm, Nursteed Road, Devizes by John Valentin and Stephen Robinson¹

with contributions by Jane Bircher,² Kate Brayne,³ H.E.M. Cool,⁴ Mark Corney,² Claire Ingrem,⁵ M. Laidlaw,¹ Jo Mills⁶ and Roger Tomlin⁷

During excavations ahead of residential development on land adjacent to Wayside Farm, Nursteed Road, Devizes, evidence for later Iron Age and early Romano-British settlement and 4th-to 5th-century Romano-British activity was identified. The later Iron Age and early Romano-British activity is confined to the northern portion of the site where a cluster of storage-type pits, flanking ditches for an east to west aligned trackway and other features indicative of settlement were identified. The 4th to 5th century deposits comprised an extensive midden, a pit containing large quantities of artefacts and at least three inhumation burials. The nature of some of the objects recovered (e.g. coins, cattle skulls, iron objects, a lead curse and a bronze garment collar) indicates that Wayside Farm may lie close to a site or building with a more specialised function such as a temple or a shrine, as it is not unusual for such places to have associated pit or midden deposits. Other late Romano-British deposits more typical of settlement-based activity were also present on the site. The results from the excavation indicates that there is still some considerable archaeological potential for the area surrounding Wayside Farm.

INTRODUCTION

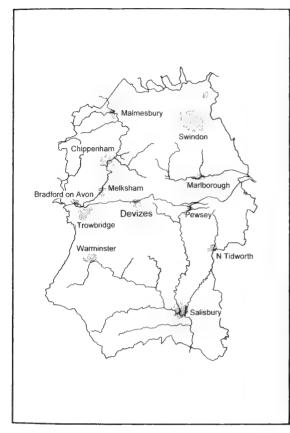
An archaeological excavation of a late Iron Age and Romano-British site on land adjacent to Wayside Farm, Nursteed Road, Devizes (centred on SU016603), was carried out by AC archaeology during November and December 1999. The site is located to the southeast of Devizes on the outskirts of the now expanded town (Figure 1). Prior to residential development the site was pasture, on land which is generally level but slopes gently down to the south. The development area is bounded to the north by the Nursteed Industrial Estate, to the east is the A342 Devizes to Andover road, to the south is open farmland and to the west a prominent linear bank of a now dismantled railway. The site lies on Upper Greensand at around 120mOD.

ARCHAEOLOGICAL BACKGROUND

Prior to a preliminary archaeological evaluation of the site (see below), there was no direct evidence for settlement of Romano-British date in this area. However, a number of artefacts have been discovered close by. These include several finds of Romano-British material to the north and west of the site, including coins, pottery, box flue tile and several burials. Neolithic flint axes have also been found to the north.

The site has been the subject of a previous evaluation by means of machine-excavated trenches (Valentin 1999). Work initially comprised the digging of 15 trenches, each 30 x 2m, followed by the excavation of a further $90m^2$ of contingency

¹ AC archaeology, Manor Farm Stables, Chicklade, Hindon, Salisbury SP3 5SU ² School House, Church Street, Norton St Philip BA2 7LU ³ The Rudyard Consultancy, 2 Green Lane, Codford St Peter, Warminster BA12 0NY ⁴ 16 Lady Bay Road, West Bridgford, Nottingham NG2 5BJ ⁵ Centre for Human Ecology and Environment, University of Southampton, Highfield, Southampton SO17 1BJ ⁶ 1 Prospect Place, Dark Lane, Seavington St Mary, Ilminster TA19 0QW ⁷ Wolfson College, University of Oxford, Linton Road, Oxford OX2 6UD



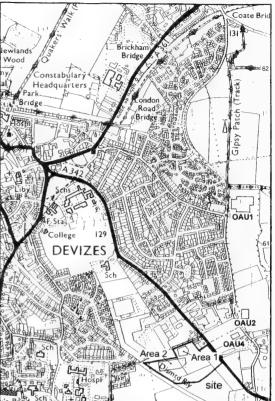


Fig. 1 : Site Location

trenching as a result of the presence in the western portion of the site of extensive evidence for Iron Age and Romano-British occupation.

The evaluation results suggested limits to the main area of activity, with subsoil features and finds absent from the eastern parts of the site. Evidence for Romano-British activity extended across c.2.8ha of the western portion of the site, with indications that more intensive settlement was likely to cover a zone of c.0.80ha in the northern part of this area. This latter area became the location for the subsequent full excavation (Figure 2).

EXCAVATION METHODOLOGY

Initial excavation involved the machine-removal of topsoil and soil overburden on to the top of intact structures, archaeological soil deposits or natural, whichever was encountered first. All further excavation was carried out by hand.

AREA EXCAVATION

The main excavation was situated at the northern end of the development site, in two blocks adjacent to the northern boundary of the site (Area 1 and Area 2 on Figure 2). Area 1 extended to $c.2000m^2$ and Area 2 covered over $c.4200m^2$. Following the initial clearance of the site, two areas totaling $480m^2$ were identified in the southwest corner of Area 2 where clarification of deposits by means of further machine-excavation was necessary.

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All spoil heaps were scanned both visually and using a metal detector for the recovery of displaced pre-modern artefacts. In addition, a metal detector was also used to scan across Areas 1 and 2; the whole of the midden area in Area 2 was detected in detail, and all metal finds located and collected.

TRENCH EXCAVATION

Part of the archaeological brief by Wiltshire County Council Archaeology Service provided for the excavation of a sequence of linear trenches radiating to the east and south of the main excavation area. These are shown on Figure 2 as Trenches 19 and 21 to 24. The principal aim of these trenches was to attempt to determine the extent, nature and function of the Romano-British buried soil horizons identified during the evaluation and to establish whether they sealed evidence for structural or cut archaeological features.

EXCAVATION OF AREA 2 MIDDEN

An extensive midden deposit (overall nos. 4255, 4293) was present, extending over a large part of Area 2. The surface area of this deposit $(c.1150m^2)$ was initially cleaned by hand to define its extent and then sub-divided into 2m squares corresponding with divisions of the existing site grid. All squares (including those not excavated) were allocated individual context numbers, and were hand-excavated alternately.

EXCAVATION RESULTS

AREA 1

A plan of all features for this area is given as Figure 3. The overlying layer sequence in this area is shown on Figure 4a and comprised topsoil (context 3000) of between 0.25-0.40m thickness, generally overlying a 0.15m thick layer of mixed clayey sand subsoil (3031). The natural subsoil (3015) consisted of greensand and clay with outcrops of greensand bedrock. Within this area of the site two broad phases are identified:

PHASE 1: LATE IRON AGE TO EARLY ROMANO-BRITISH

Linear features

Two parallel ditches 7m apart (F3034 and F3099 on Figure 3), likely to be the flanking drainage

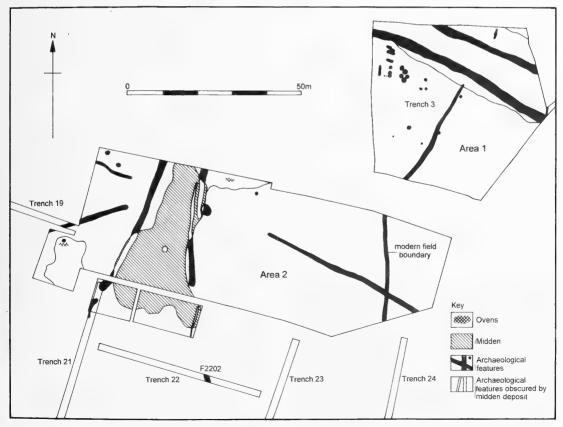


Fig. 2 : Plan of all features

ditches for a track or droveway, crossed the northern portion of the site. They followed an approximate east to west alignment, continuing beyond the excavation limits. Each of these linears was recut on at least one occasion, evidence for which was clearly visible in a number of the excavated segments (Figure 4a, b and d). Both had similar dimensions and profiles; generally 2m in width, with steeply sloping sides and a depth varying between 0.4-0.6m. The multiple fills consisted of dark grevish-brown sandy clays or silts, and appear to represent gradual silting rather than deliberate infill. Between the ditches and on the outside of F3034 was a 0.3mm (at its maximum) thick deposit of disturbed natural subsoil (3098)(Figure 4b). This material may represent both upcast from when the ditches were cut and mixed trampled horizons formed when the probable trackway was in use.

A poorly-defined north to south aligned gully (F3044) was present in Area 1. Its north terminal was within the excavation area and it did not continue into Area 2 to the south. F3044 (section on Figure 4c) had an average width of 0.6m with a gentle sloping profile and depth of 0.2m. The gully had been recut on at least one occasion.

Two short lengths of gully or slot-like features within Area 1 (F3139 and F3066) are of uncertain function. Each was c.3m in length with an average depth of c.0.3m. Each had a single fill composed of a dark brown sandy clay. A north to south aligned gully (F3117 on Figure 3 and 4e) clearly cut F3034 and may be a drainage gully.

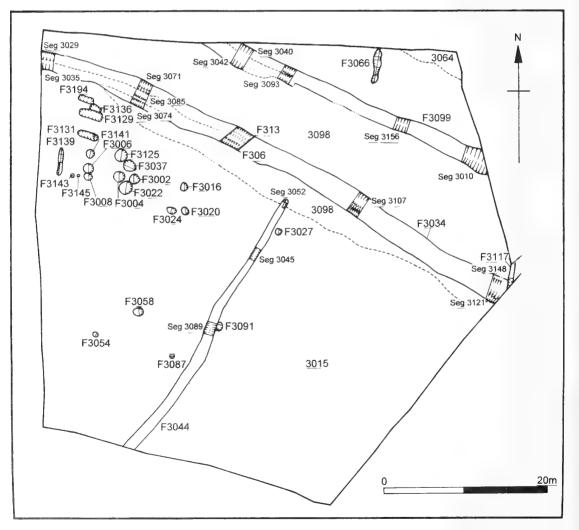


Fig. 3 : Plan of Area 1

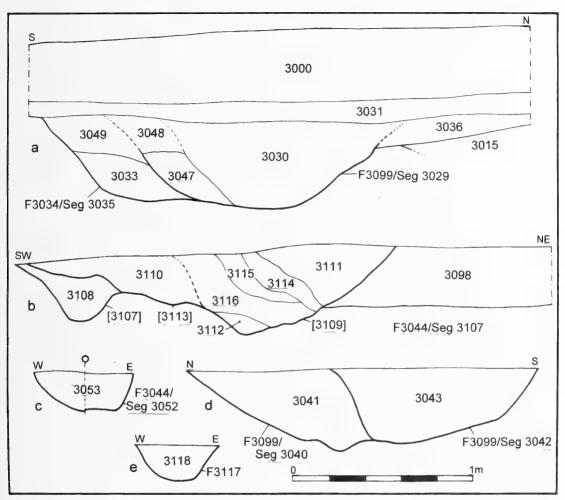


Fig. 4 : Selected sections of linear features Area 1

Discrete features

A cluster of eight probable Iron Age pits was present in the northwest portion of this area (Figure 3). All were approximately circular in plan, up to a maximum diameter of 1.4m. The excavated profiles (Figure 5) were either vertically cut or 'bell-like', on to a flat base with a maximum depth of 0.7m. With the exception of F3006, the fills varied only slightly, generally composed of mottled greenishbrown or sometimes orange-brown sandy silts, with sparse chert and charcoal coarse components. The fill of F3006 (context 3007 on Figure 5) was much more humic in composition, a dark brown sandysilt with more frequent components of burnt greensand and charcoal. Only two of these pits were intercutting, which indicates that the majority may be considered to be broadly contemporaneous. The presence of charred grain from some of these

features (see below) might suggest that at least some may have originated as storage pits.

Other less substantial and more irregularly spaced pits or features were located in Area 1. Some of these (e.g. F3020, F3024 F3058) may be storage



Plate 1 : Initial cleaning of Area 1 (view from southwest)

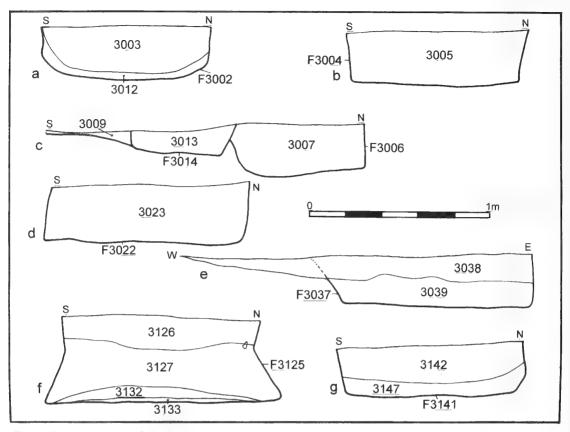


Fig. 5 : Selected sections of pits Area 1

pits but the profiles and depths appear to be too shallow, whilst others (e.g. F3054 and F3058) are more likely to be post holes.

PHASE 2: LATER ROMANO-BRITISH

Inhumations

Within Area 1, these were the only feature type securely dated to this phase. These comprised three closely-spaced grave cuts, and one uncertain grave (no human bones were present), all located towards the northwest corner of the site (Figures 3 and 6). All graves were aligned approximately east to west with varying dimensions and profiles. The survival and condition of the bone was generally poor. All individuals were laid out in an extended supine position.

F3136 was located within this cluster of burials, but no human bone was present. The feature was 1.3×0.8 m in plan, with a maximum depth of 0.3m. The profile was almost vertically sided and steep sloping at either end onto a broad flat base. A group of hobnails (SF169) was present at the western end of the cut and one coffin nail (SF170) at the east end.

INH 1 - F3129. The grave cut was 2.6 x 1.1m in plan, with a maximum depth of 0.15m. The profile was near vertically-sided onto a broad flat base, although the edge was less steep at either end. It contained the remains of an adult, probably male skeleton, the presence of nails indicating that the individual had been interred in a coffin. The main characteristic of this burial was that the head had been removed and was placed towards the foot end of the grave, and a complete pottery vessel (SF147) placed next to it. A cluster of hobnails (SF119 covers all) was also present at the foot end of the grave.

INH 2 - F3131. The grave cut was 2.1 x 0.8m in plan (the west end of the grave cut truncated by modern field drain), with a maximum depth of 0.35m. The profile was generally vertically sided,

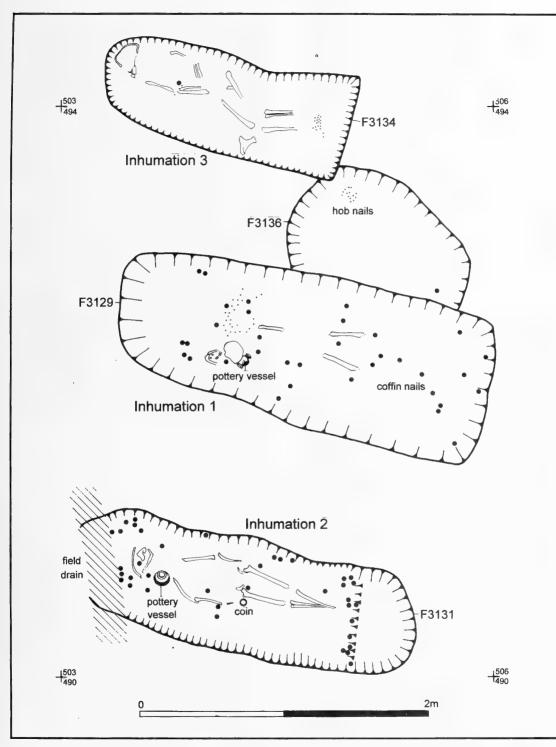


Fig. 6 : Detailed plan of Area 1 inhumations

but the east end was steep-sloping then stepped onto a flat base. The grave contained the remains of an adult skeleton (Plate 2), some bones only apparent as staining within the surrounding subsoil. This individual had again been interred in a coffin. A complete pottery vessel (SF201) was found next to the skull, a bronze coin (SF195) placed close to the right hand and an iron spoon next to the lower left leg.

INH 3 - F3134. The grave cut was 1.75 x 0.70m in plan, with a maximum depth of 0.15m. The profile was almost vertically sided, but moderately sloping at either end onto a broad flat base. This grave contained the remains of an adult skeleton. The condition of the bone was generally poor with many of the smaller bones absent. A cluster of hobnails was present at the foot end of the grave.

AREA 2

INTRODUCTION

A plan of all features in this area is given in Figure 7. The overlying layer sequence can be seen on Figure 8f, and in this area comprised topsoil (4000) varying between 0.25-0.40m thick, at its shallowest above intact midden deposits (see below). The greatest depths of topsoil were recorded in the north and east portions of the site, where a localised deposit of pale brown silty sand subsoil (4077), 0.15m thick, was present. Artefacts recovered from this layer suggest a Romano-British date for its formation. Below this was a surviving buried soil horizon, its extent covering most of the western half of the excavation area and probably representing a buried former land surface (4206, 4089). This layer varied from 0.5-0.3m thick and comprised a mottled greyish-brown sandy silt. Where this layer was present towards the northern part of Area 2 it was partly sealed by the midden. A deeper subsoil (4074, see Figure 8b) was only present at the east and west of the area, away from the main concentration of archaeological activity. The natural subsoil (context 4090) consisted of greensand and clay with outcrops of greensand bedrock.

With the exception of a single north to south aligned ditch (shown as a modern field boundary on Figure 2) the remaining deposits and features in this area were of later Romano-British date.



Plate 2 : Inhumation 2 (view from east)

PHASE 2: LATE ROMANO-BRITISH

Linear features

The area was crossed by a series of linear features aligned both north to south and east to west, of which three of these were partly sealed by midden deposits and terminated to the south within the limits of the excavation. The three main north-south ditches (F4261, F4288 and F4254 on Figure 7) were partly sealed by the midden deposit and the upper fills contained midden-type soils. The largest of these (F4261) continued beyond the excavation limits to the north and had a maximum width of 2m, and variable steep-sloping profile with an average depth of 0.8m. Segments excavated through ditch F4261 (e.g. Seg. 4072, Figure 8f) showed fills of varying sandy clays and silts, with some primary fills (context 4085, etc) with evidence for gleving. The two remaining north to south aligned linear

features F4288 and F4254 were sealed by midden deposits and were poorly-defined in plan. F4288, broadly parallel with F4261, also continued beyond the northern excavation limits but terminated 15m to the south of the northern baulk. It had a maximum width of 2m with a steeply sloping profile and flat base at a depth of 0.75m (Seg. 4095 on Figure 9c). The fills comprised mixed silty sands and clay silts, with very few coarse components. The function of these features is unclear, although they may have served to demarcate the extent of the midden deposit.

Ditch F4254 (Seg. 4256, Figure 8e) became progressively shallower to the north until it disappeared within the limits of the excavation with no defined terminal evident. Dimensions varied from 0.6-1.6m in width, with a maximum depth of 0.4m. The profile was consistent, however, being moderately sloping on to a flat base. The fills comprised mixed clayey silts with few coarse components evident.

The east to west aligned ditches in this area (F4200, F4294 and F4295) were poorly-defined

in both plan and profile, but F4294 and F4200 appeared to terminate within the limits of the excavation. The linear feature most clearly defined, F4200, had an average width of 1.2m and average depth of 0.6m. The excavated segments of F4200 (Seg. 4207 on Figure 8d) revealed a distinct stepped profile on one side. The fills were generally composed of dark greenish-brown clay sands not dissimilar to the surrounding natural subsoil.

Ditches F4294 and F4295 were less welldefined both in plan and profile, with fills similar in composition to the surrounding natural subsoil. Both were less substantial than the other ditches on the site with maximum widths of 1.4m and sloping profiles to a depth of 0.35m (Segs. 4070, 4075, 4291 and 4266 on Figures 8b, c and 9a, b). The fills were generally composed of dark greenishbrown clay sands. Both these ditches may represent former field boundaries.

Discrete features

Six pits varying in size and profile were present in Area 2. The largest of these, F4225 (section on

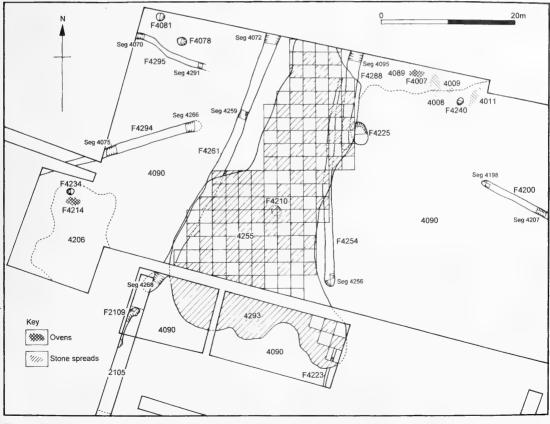


Fig. 7 : Plan of western portion of Area 2

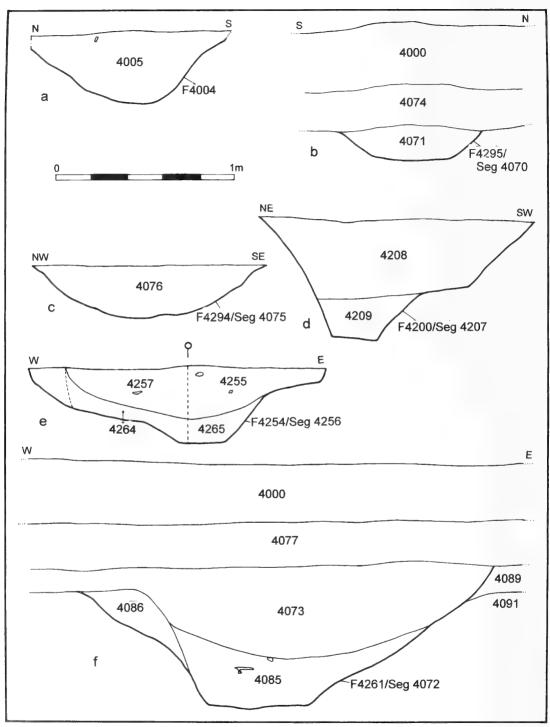


Fig. 8 : Selected ditch sections Area 2

Figure 10d), was partly sealed by midden deposits, measuring 2.5m in diameter with a steep profile and broad flat base at a depth of 1.6m. The uppermost fills (4226) and (4239) were composed of material similar to the surrounding midden deposit and appeared to be a deliberate infill. Both

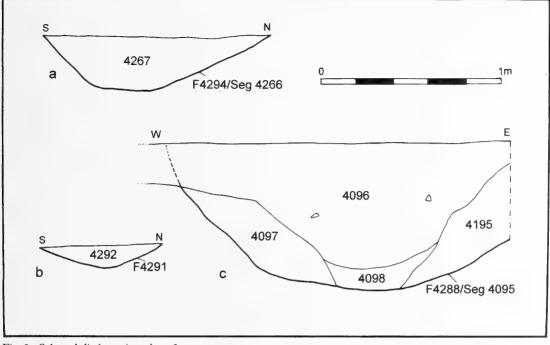


Fig. 9 : Selected ditch sections Area 2

these fills contained large quantities of artefacts, including animal bone, pottery, metal objects and ceramic building material and a fragment of human femur, with the lowermost fill (4248) also containing large fragments of building stone and other artefacts. This pit, possibly with some ritual significance, is discussed more fully in the Finds and Discussion section of this report.

Two features, F4078 and F4081 (sections on Figure 10a and b) were located towards the north west corner of the site and are likely to be post-pits. Both had similar plan dimensions: 0.8m in diameter, although their depths were 0.2m and 0.4m respectively. F4078 had a rounded profile, with F4081 showing as steep-sloping onto a flat base. Fills of both these features were charcoal-rich in composition, with F4078 also having evidence for a post pipe represented by charcoal fill (4079 on Figure 10a).

Pit F4210 (section on Figure 10c) was sealed by 0.25m thick midden soils (context 4136). 1.20m in plan diameter, it had a near vertical profile and broad flat base at a depth of 0.4m. This feature contained a single fill (context 4211) not dissimilar to the surrounding midden soils, composed of a humic sandy clay.

F4234 (section on Figure 10e) was situated in the southwest corner. 1.15m in diameter, the profile

was steep-sloping onto an irregular base at a depth of 0.4m. This feature contained evidence of burning within its fills, which may represent some association with adjacent oven structure F4214 (see below) situated immediately to the south of this feature.

Pit F4240 (section Figure 10f) was situated against the northern excavation limits. 1.0m in diameter, the profile showed as steep-sided onto a concave base at a depth of 0.45m. It contained a single fill (context 4241) composed of a dark greyish-brown clay sand containing frequent charcoal and pottery.

Structures

Two structures, F4007 and F4214, are shown in both plan and section on Figure 11. Structure F4007 (Plate 3), situated close to the northern limits of the excavation, measured 3.2×1.25 m. This feature, aligned east-west, comprised a flue and associated probable stoking pit F4237. The flue comprised two courses of roughly hewn sandstone blocks, up to 0.2m in size, with a single course of sandstone slabs as part of the floor (4231). The upper course of the flue and floor had been subjected to intense burning. Both the lower course of this structure and the flooring were set into a chalky clay mortar (4232). The single line of stone

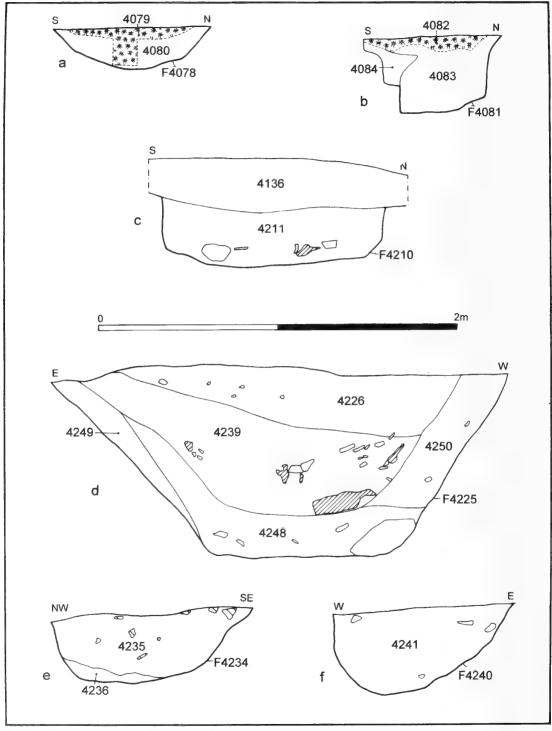


Fig. 10 : Selected sections of pits Area 2

slabs forming a floor were not present throughout the base of the structure but continued beyond the entrance to the flue into pit F4237 for approximately 0.8m, thus forming a platform. The absence of floor slabs at the eastern end of the flue appeared deliberate, with only a thick band of chalky clay

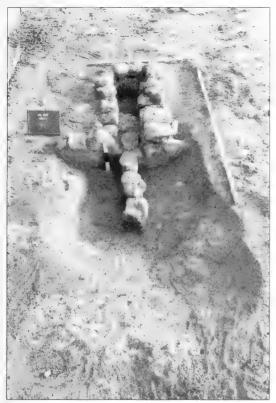


Plate 3 : Oven structure F4007 (view from west)

mortar (4228) evident, which possibly represents mortar bonding for a floor at a higher level which may have been present. The reason for the floor slabs continuing outside the flue cannot be determined, although it is considered that these may have been constructed to help make the cleaning out of the flue more efficient. Without this platform acting as a solid base within the stoke pit, the depth of the stoke pit may have constantly increased by the raking out the flue due to the soft subsoil at the base of this feature. A sequence of fills from both the flue and stoke pit appear to represent mainly infill, including collapsed material from the structure, with little evidence for in situ deposits. The lowest fill (4230) within the stoking pit appears to represent burning of the natural greensand. The uppermost fill (4221) of this feature may represent infill and collapse of the structure, and produced a single coin of AD 364-78 (see below), giving a reasonably secure date for when this structure went out of use.

F4214 (Plan and section Figure 11c and d) comprised a small roughly circular structure, aligned on an approximate east-west axis and situated towards the southwest corner of the site.

 $1.2 \ge 0.7$ m, it was composed almost entirely of burnt or scorched sandstone with occasional chalk pieces, most of which appeared to be collapse with only one course appearing to survive *in situ*. The fills of this feature were mostly composed of either deliberate infill or collapse, but included a thick band of burnt chalk (4246) possibly representing a former lining. It is possible that this feature is the remnants of a former structure such as a small oven, but this could not be determined. Although little of this possible structure survives *in situ*, quantities of loose stone, including some burnt, were present on the surface close by.

Buried soils

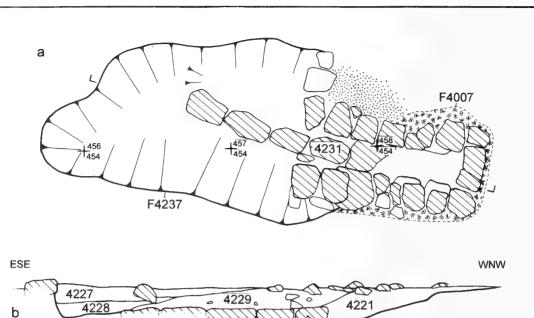
Areas of a probable buried former land surface were present in the southwest corner (context 4206 on Figure 7) and towards the northern excavation limits (context 4089). Context 4206 comprised a mottled greyish-brown sandy silt with few coarse components. Three slots were excavated through this deposit, which was between 0.2-0.3m thick. Context 4089 comprised the same soil matrix and had a maximum depth of 0.2m. Artefacts retrieved from these layers were principally of Romano-



Plate 4 : Excavation of Area 2 midden (view from southeast)



Plate 5 : Extent of Area 2 midden (view from north)



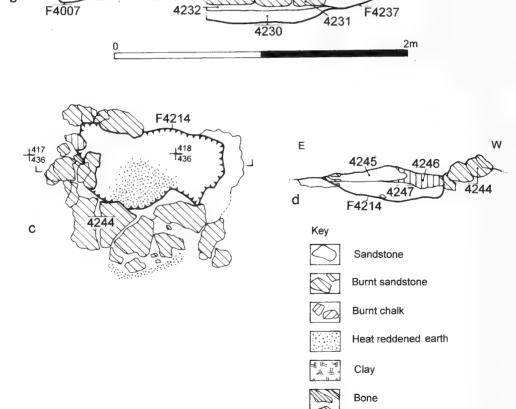


Fig. 11 : Plans and sections of Area 2 oven structures

British date, although a number of pieces of prehistoric worked flint was also present.

The midden

Across a large part of the central portion of Area 2, and in parts sealing the buried soils described above, was an extensive deposit interpreted as a midden (overall contexts 4255 and 4293). The extent of the deposit can be seen on Figure 7 and it is also shown on Plates 4 and 5. The midden was on a broadly north to south alignment, covering an area of c.1150m². The material comprised an homogenous dark brown/black humic sandy clay, undulating across the area with a depth varving between 0.3m towards the centre and 0.1m on its fringes (overall average was 0.15m). It is likely that the midden was formed as a result of a single episode of dumping, as identical soils (and indeed conjoining pottery sherds) were present in the adjacent ditches and pit F4225. The deposit contained the vast majority of artefacts recovered from the site, most of which are of late Romano-British date. The southern extent of this deposit was located within the excavation area, although it was not fully revealed to the north. The midden soils appear to widen towards its southern end, following the area defined the two ditches (F4261 and F4254) which also become further apart at this point.

PHASE 3: POST-MEDIEVAL

A single ditch can be allocated to this phase. F4004 ('modern field boundary' on Figure 2; section on Figure 8a) was aligned approximately north-south with a steep-sided profile. Its alignment suggests a former continuation of an existing boundary. Nine pieces of blue transfer-printed wares, white finewares and stonewares of 19th-and 20th-century date were recovered from the fill (context 4005). Four clay pipe stems and a fragment of modern clear window glass were also present within the fill.

TRENCH RESULTS

Five trenches were excavated, radiating to the east and south of the main excavation Area 2 (shown on Figure 2 as Trenches 19, 21-24). Trenches 19, 21 and 22 contained evidence for archaeological activity. Despite scanning of all spoil heaps adjacent to the negative trenches there was a complete absence of artefacts of any date. Trench 19 revealed evidence for the continuation of ditch 4075. This was visible only below subsoil layer (4074) although this relationship was unclear due to the similarity of the fill with the overlying layer.

A surviving buried soil horizon (2105), 0.15m thick, was encountered in the northern half of Trench 21, and appeared to be identical to buried soil (4206) encountered in the main excavation area. This soil horizon (2105) was cut by a single archaeological feature, F2109, comprising a northeast-southwest aligned short, irregular linear, of which c.6m was exposed. 0.5m wide, becoming wider at its terminal, and 0.15m deep, late Romano-British pottery was recovered from its fill. The ditch terminated at its northeast end within the trench.

A single cut feature was present in Trench 22 (F2202 on Figure 2) which was cutting a deep subsoil (context 4074) present elsewhere on the site. F2202 was a north-south aligned probable ditch, with a width of 1.50m and steep profile to a depth of 0.5m. This feature probably terminates immediately to the north, as it did not appear in the main excavation area. No artefacts were recovered.

THE FINDS

THE IRON AGE AND ROMAN COINS by Mark Corney

48 coins were submitted for identification, dating and comment. With the notable exception of SF233, a late Iron Age silver unit from a late Roman context (4205), all are Roman and, bar one late 3rd-century piece, (SF249) all are of 4th-century date.

Coin SF233, context 4205, is a fragmentary late Iron Age uninscribed silver unit (VA 1042-1) of a general type Robinson (1977) has described as 'sub-Dobunnic', but now regarded as part of the main Dobunnic series (van Arsdell 1989; 1994). Its presence is of considerable intrinsic interest as it is close to the current southern limit of the known distribution of the type.

For meaningful statistical analysis, the assemblage has been treated in accordance with the methodology established by Casey (1974) and Reece (1991, 1995). When expressed as *per mills* totals (Table 1) the Wayside Farm group shows

Period	13 260-275	15 296-317	16 317-30	17 330-348	18 348-364	19 364-378	21 388-402	TOTAL
No. of coins Per mills		3 63.81		8 170.23	5 106.37	23 489.41	4 85.10	47 1000

Table 1: The Roman coins as absolute numbers and per mills

trends that underscore the very late Roman date for activity on the site and complements the ceramic and other evidence.

The figures as expressed per mills show a number of trends that can be directly related to Wiltshire sites where there are exceptionally large numbers of Valentinianic and later issues. The assemblages from the county have been the subject of a major review by Moorhead (2001) and full details will be found there. The high Valentinianic (489.41 per mills) figure is part of a trend seen across the west of Britain (ibid), where the Wiltshire average is 218.2 per mills against the national average of 118 per mills. The Theodosian issues, at 85.10 per mills, are well above the British average of 50.25. There can be little doubt that Wayside Farm was still actively attracting coinage, and using it, into the early 5th century - an observation backed by the ceramics and other finds.

The character of the coin use and loss is a little more difficult to assess and the dominance of the Valentinianic phase is exceptionally high, even by Wiltshire standards (Moorhead 2001, 90-5). Issues of the preceding periods 17-18 score 276.6 per mills, a figure very close to the Wiltshire average of 280.5 per mills (ibid, 90). The higher values for the Valentinianic issues can, in general terms, be compared with a number of local sites where a religious function is known or suspected. These include Colerne Mounds, Silbury Ditch, Castle Combe and Urchfont (ibid, table 2, 91). However, substantial rural settlements where a religious function has not been demonstrated also show high figures, including Butterfield Down, Euridge and Charlton Down (ibid). Given the evidence of the other artefacts it is possible that the Wayside Farm assemblage represents a religious deposit but this cannot be confirmed purely on numismatic grounds.

THE CATALOGUE

Con-SF Coin description period. text No.

Ref. and mint

Obv. Head right. CONSTANTINVS AVG Rev. Sol standing left. SOLI INVICTO Mint mark: PTR Trier 4255 264 Æ 3 ?Crispus Heavily encrusted. Obv. Head right. []NOB[] Rev. Illegible. Mint mark: Illegible 4023 270 Æ 3 Constantine II as Caesar Obv. Head right. AD318 FL CL CONSTANTINVS IVN N C Rev. Sol standing left. **[SOLI IN]VICTO COMITI** Mint mark: PLN London Area 2 205 Æ 3 Constantine I HK 12 Obv. Head right. ext. CONSTANTINVS AVG Camp gate. PROVIDENTIAE AVGG Mint mark: PTR Trier 4006 185 Æ 3. Obv. Helmeted bust of Roma left. VRBS ROMA Rev. Wolf suckling twins. Mint mark: SCONS* Arles.

4205 233 AR Iron Age coin. Fragmentary.

VA 1042-1 Corio Head Type Class B. c30-15BC.0.95gm. See discussion. Robinson 1977. 4016 249 Æ Antoninianus Tetricus I Oby, Radiate head right. IMP C T[ETRICVS PF AVG] **RIC 87** Rev. Laetitia AD 270-3 [LAETITIA AVG]. Area 2 203 Æ Follis Constantius I **RIC** 16 AD 297-305 ext. Obv. Head right. CONSTANTIVS NOB C Rev. Genius standing left. [GEN]IO PO[PVLI ROMANI] Mint mark: blank-attributed to London 4255 263 Æ 3 Constantine I As RIC 15 Obv. Head right. AD 313-17 IMP CONSTANTINVS PF AVG Rev. Sol standing left. [SOLI INVICTO C]OMITI Mint mark: Illegible 4073 215 Æ 3 Constantine I Not in RIC cAD 316-7 cAD 318-24 **RIC 145** AD 324-30 HK 355 AD 330-5

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EXCAVATIONS IN 1999 ON LAND ADJACENT TO WAYSIDE FARM, DEVIZES

			-
4239	277	Æ 3 Obv. Helmeted bust of Roma left. [VRBS] ROMA Rev. Wolf suckling twins. Mint mark: TRS Trier.	HK 51 AD 330-5
3130	195	AE4 House of Constantine Obv. Head right Illegible Rev. Legionary Standard (1 stand [GLORIA EXERCITVS] Mint mark: illegible	As HK 87 AD335-40 dard).
4019	218	Æ 4. House of Constantine Obv. Illegible Rev. Legionary Standard (1 stand [GLOR]IA EXER[CITVS] Mint mark; illegible	As HK 87 AD 335-40 dard).
4073	261	Æ 4 Constantius II Obv. Head right. FL IVL CONSTANTIVS AVG Rev. Legionary Standard (1 stand GLORIA EXERCITVS Mint mark: TRP Trier	HK 100 AD 337-40 dard).
4017	224	Æ 4. Constantius II. Obv. Head right. CONSTANTIVS PF [AVG] Rev. Two victories facing each ot VICTORIAE DD AVGG Q NN Mint mark: TR[] Trier	As HK 137 AD340-8. her.
4032	254	Æ 4. Constantius II Obv. Head right. CONSTANT[IVS PF AVG] Rev. Two victories facing each otl [VICTORIAE DD AVGG Q NN Mint mark: Illegible	
4241	247	Æ 4 Constans Obv. Head right.	As HK 138 AD 340-48

- Obv. Head right. AD 340-48 [CONST]ANS P[F AVG] Rev. Two victories facing each other. [VICTORIAE DD AVGG Q NN] Mint mark: Illegible
- Area 2 204 AR Siliqua Constantius II. RIC 210 ext. Obv. Head right. AD 360 CONSTANTIVS PF AVG Rev. Victory advancing left VICTORIA DD NN AVG Mint mark: LVG Lyons
- MD 275 Æ 2 Decentius CK 218 Head right AD 351-53 [DN DEC]ENTIVS NOB CAES Rev. 2 victories holding shield inscribed VOT V MVL X. VICTORIAE DD NN AVG ET CAE Mint mark: RPLG Lyons.
- 4026 252 Æ 3. Copy of Magnentius Copy as RIC 316

Obv. Bare head right. cAD 350-3 Rev. Two victories holding shield.

- 4255 282 Æ 3 Constantius II CK 252 Obv. Head right. AD 354-61 [DN CONSTAN]TIVS PF AVG Rev. Soldier spearing fallen horseman. FEL TEMP [REPARATIO] Mint mark: CPLG Lyons
- Area 2206Æ 4 Barbarous copy.extFallen horseman type.cAD355-65
- 4239 266 Æ 3 Valens CK 504 Obv. Head right. AD 364-78 DN VALENS PF AVG Rev. Victory advancing left. SECVRITAS REIPVBLICAE Mint mark: SCON*
- 4044 257 Æ 3 Valens CK 483 Obv. Head right. AD 364-78 DN VALENS PF AVG Rev. Victory advancing left. [SECVRITAS] REIPVBLICAE Mint mark: <u>OF I</u> C[] Arles
- 4032 259 Æ 3. Valens As CK 303 Obv. Head right. AD 364-78 [DN VALEN]S PF AVG Rev. Victory advancing left. SECVRITAS [REIPVBLICAE] Mint mark: <u>OF I</u> LVG[] Lyons
- 4030 253 Æ 3. Valens CK 713 Obv. Head right. AD 364-78 [DN V]ALEN[S PF] AVG Rev. Victory advancing left. SECVRI[TAS REIPVBLICAE] Mint mark: RSECVND Rome
- 4039 196 Æ 3. Valens CK 1015 Obv. Head right. AD 364-78 [DN VALEN]S PF AVG Rev. Victory advancing left. SECVRITAS [REIPVBLICAE] Mint mark: SMAQ[] Aquilea
- 4241 244 Æ 3 Valens As CK 303 Obv. Head right. AD 364-78 [DN VALEN]S P[F AVG] Rev. Victory advancing left. [SECVRITAS REIPVBLICAE] Mint mark: Illegible, <u>OF I</u> in field.
- MD 274 Æ 3 Valens As CK 317 Obv. Head right. AD 364-75 [DN VALEN]S PF AVG Rev. Emperor dragging captive. [GLORIA ROMANORVM] Mint mark: Illegible

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4136 279 Æ 3 Valentinian I CK 527 Obv. Head right. AD 364-78 [DN V]ALENTIANVS PF AVG

> Rev. Victory advancing left. [SE]CVRITAS REIPVB[LICAE] Mint mark: SCON Arles

4038 255 Æ 3. Valentinian I As CK 1302 Obv. Head right. AD 364-78 DN VALENTI[ANVS PF AVG]

> Rev. Victory advancing left. SECV[RITAS] REIPVBLICAE Mint mark: []SC[] Siscia

4239 269 Æ 3 Valentinian I As CK 96 Obv. Head right. AD 364-78 [DN VALENT]IANVS PF AVG

> Rev. Victory advancing left. SECVRIT[AS REIPVBLICAE] Mint mark: Illegible

4241 271 Æ 3 Valentinian I AS CK 96 Obv. Head right. AD 364-78 [DN VALENTI]ANVS PF AVG

> Rev. Victory advancing left. SECVRITAS RE[IPVBLICAE] Mint mark: Illegible

- MD 273 Æ 3 Valentinian I CK 317 Obv. Head right. AD 364-75 DN VALENTINIANVS PF AVG Rev. Emperor dragging captive. GLORIA ROMANORVM Mint mark: <u>OF II</u> LVGS Lyons
- 4031 256 Æ 3. Valentinian I As CK 92 Obv. Head right. AD 364-75 DN VALENT[INIANVS PF AVG] Rev. Emperor dragging captive. GLORI[A ROMANORVM] Mint mark: illegible
- 4026 251 Æ 3 House of Valentinian As CK 96 Obv. Illegible. AD364-78 Rev. Victory advancing left. [SECVRI]TAS [REIPVBLICAE] Mint mark: Illegible
- 4033 210 Æ 3. House of Valentinian As CK 96 Obv. Head right. AD 364-78 Rev. Victory advancing left. SECV[RITAS REIPVBLICAE] Mint mark: Illegible
- 4033 211 Æ 3. House of Valentinian Obv. Head right. AD 364-78 Rev. Illegible Mint mark: Illegible

MD 281 Æ 3 House of Valentinian

Obv. Head right. Rev. Illegible Mint mark: Illegible AD 364-78

- 4022 246 Æ 3. Gratian. As CK 503 Obv. Head right. AD 367-75 [DN]GRATIA[NVS AVGG AVG] Rev. Emperor dragging captive. GLORIA N[OVI SAECVLI] Mint mark: [C]ON[] Arles
- 4136 280 Æ 3 Gratian. CK 517 Obv. Head right. AD 367-75 DN GRATIA[NVS AVGG AVG] Rev. Emperor dragging captive. [GLORIA NOVI] SAECVLI Mint mark: <u>OF II</u> CON[] Arles
- 4221 236 Æ 3 Gratian. CK 529 Obv. Head right. AD 367-75 DN GRATIANVS [AVGG AVG] Rev. Emperor dragging captive. [GLORIA] NOVI SAECVLI Mint mark: []CON Arles
- 4226 241 Æ 3 Gratian. CK 529 Obv. Head right. AD 367-75 DN GRATIANVS AVGG AVG Rev. Emperor dragging captive. GLORIA NOVI SAECVLI Mint mark: []CON Arles
- 4220 235 Æ 3 Gratian As CK 98 Obv. Head right. AD 367-78 DN GRATIANVS PF AVG Rev. Victory advancing left. SECVRITAS REIPVBLICAE Mint mark: illegible
- 4026 213 Æ 3. Gratian As CK 95 Obv. Head right. AD 367-78 DN GR[ATIANVS PF AVG] Rev. Emperor dragging captive. [GLORIA ROMANORVM] Mint mark: illegible
- 4159
 278
 Æ 4 Theodosius.
 As CK 797

 Obv. Head right.
 AD 388-92

 DN TH[EODOSIVS PF AVG]
 Rev. Victory advancing left.

 SAL[VS REIPVBLICAE]
 Mint mark: Illegible
- 4018 260 Æ 4. House of Theodosius As CK 796 Obv. Head right. AD388-402 Illegible. Rev. Victory advancing left. [SALVS REIPVBLICAE] Mint mark: illegible

164

4077	220	Æ 4 House of Theodosius Obv. Head right. Illegible. Rev. Victory advancing left. [SALVS REIPVBLICAE] Mint mark: illegible	As CK 796 AD388-402	
4239	276	Æ 4 Arcadius. Obv. Head right. DN ARCADIVS P[F AVG]	HK 571 AD 395-402	

DN ARCADIVS P[F AVG] Rev. Victory advancing left. VICTO[RIA AVGGG] Mint mark: TCON Arles

THE NON-FERROUS AND MISCELLANEOUS SMALL FINDS

by Jane Bircher

This is a relatively small assemblage of 28 artefacts. There are eight items for adornment or personal use; a brooch (Object No.1), three bracelets (2-3, 28), a finger ring (4), a strap-end (5), a toilet implement (6) and two components of a composite garment (9-10). Four items have a primarily everyday domestic use; two spoons (7-8), a die (14) and a box fitting (27). The strap-end, garment components and box fitting are items of quality if not luxury. Scraps form a relatively high proportion of the lead finds and may be associated with a manufacturing process on or near the site (19-26).

The area of Late Iron Age/early Roman occupation, Area 1, produced a single find - the Nauheim derivative brooch (1). Its mid-1st century AD date is consistent with its context. All the other identifiable artefacts derive from the Area 2 midden or the pit (F4225), which it partially seals. The ceramic and numismatic evidence suggests a date of AD370-420+ for these deposits and there is nothing to indicate that the small finds do not fit comfortably within the same date range. The copper alloy bracelets (2-3), strap-end (5), spoons (7-8) and bone mount (22) are all diagnostically 4th century types. Parallels from other sites suggest a 4th-century date for the finger ring (4) and die (14). The stamped sheet objects (9-10) appear to derive from late Antique dress. It is especially useful to see an example of a late Roman strap-end (5) in a securely stratified context.

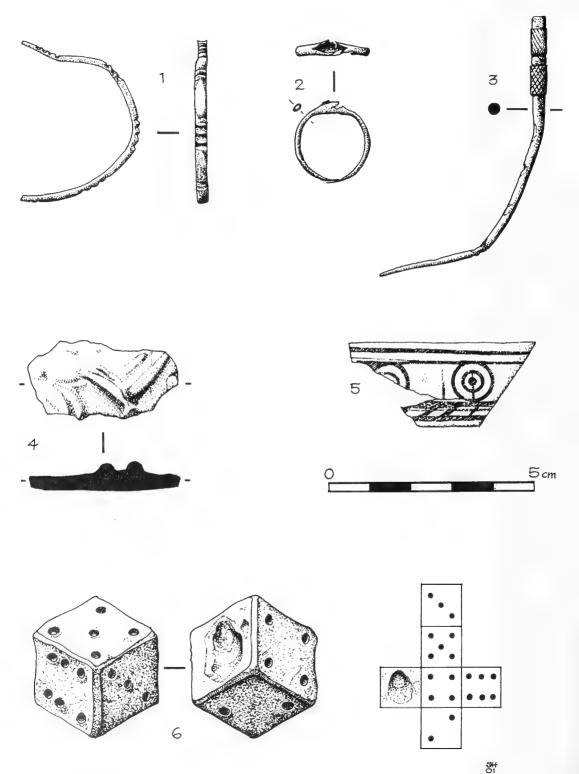
The assemblage is too small to indicate a sitetype with any certainty. However it has some unusual features which support the evidence of ritual or religious activity provided by the other finds, in particular the lead curse tablet (below). The highly unusual stamped decorative sheets, if originally attached to garments, could have constituted priestly or special regalia. The manner of their deposition is especially intriguing. The collar (9) has been intentionally folded prior to deposition and must have been detached from any garment at the time. The preservation of the curvilinear profile of the thin metal epaulette (10) suggests that this too was detached and very carefully deposited. Both items derive from pit F4225. It could be suggested that rather than simply being thrown away, these items were intentionally (?ritually) discarded. Although by no means conclusive, the presence of other personal items and, in particular, the two spoons could also indicate religious practice. Spoons, particularly in the late Roman period clearly have some liturgical as well as domestic function (cf the inscribed silver spoons from the Thetford hoard; Johns and Potter 1983). They are also a common class of votive object at temple sites (cf Lydney, Nettleton, etc. as discussed in Woodward and Leach 1993, 332-334). Small personal objects such as bracelets and strap-ends occur on all classes of 4th-century site but where they occur at temples can clearly be assigned a votive nature (ibid for bracelets. Lydney; Wheeler and Wheeler 1932, 84, no. 82, fig. 19, Maiden Castle, Wheeler 1943, 288, nos. 14-15, fig. 96 for strapends).

In the absence of any clear recognisable structure within the excavated area, a more precise interpretation is difficult. When the cumulative evidence of the small finds and the unusual composition of the ceramics is viewed together, a non-domestic assemblage becomes a strong possibility and a religious context appears attractive.

CATALOGUE OF COPPER ALLOY OBJECTS

Illustrated

Fig. 12.1. (Object No. 2). Area 2, midden seg. 4027, SF212. Approximately one third survives of a well-made bracelet of D-shaped section decorated with lozenge-shaped panels separated by groups of 4 (5 at the terminal) transverse grooves. The bracelet closed with a hook-and-eye fastening with part of the eye terminal extant. A 3rd-century date is given for a similar bracelet from a later 4th century context at Greyhound Yard, Dorchester



(Henig 1993a, 117, no. 18, fig. 60). However, a date after AD350 is usually suggested for this type and its more commonly found heavier form (Orton Hall Farm; Macreth 1996, 98, no. 57, fig. 62 with further examples given). Restored 78mm, section 3 x 2mm.

Fig. 12.2. (4). Area 2, midden seg. 4136, SF234. Delicate finger ring made of rolled sheet metal. The hoop of square section is slightly carinated at the shoulders and closed by a lap joint opposite the bezel. At the bezel the rolled sheet splits and expands to form an elliptical opening for the setting which is now missing. No parallels have been found for this ring which appears to be a late Roman type (*cfButt Road cemetery*, Colchester; Crummy 1983, 49, nos. 1789-90, fig. 52 from graves dated *c*. AD320-*c*.450). A similar ring with a green glass setting came from a post-Roman context at Uley (Henig 1993b, 171, no. 8, fig. 132). A gold ring of late 4th-century type from Bowerchalke, Wilts. has a bezel fashioned in a similar way (*pers. comm.* Nick Griffiths). External Ø 19mm, internal Ø 16mm, height of bezel 3mm.

Fig. 12.3. (6). Area 2, midden seg. 4120, SF227. Hair pin or toilet implement with a round-sectioned shank (now distorted) tapering to a point. Between the shank and the missing top are two raised and finely cross-hatched zones. If this is a pin, it belongs to an unusual and unidentified type. It does not fit comfortably into any of Cool's groups although several (Groups 5,9,11,20) incorporate cross-hatched areas, none as wide as this (Cool 1990). Alternatively, the cross-hatching would provide a good finger-grip for a small toilet implement such as the *ligula* from the Bancroft villa (Hylton 1994, 314, no 121, fig. 146) or ear-probe from King Harry Lane (Stead and Rigby 1989, 23-4, no. 88, fig. 14). Roman. Restored length 90mm, maximum Ø 3mm.

Fig. 13.1. (10). Pit F4225, context 4226, SF238. Tapering strip of decorated sheet metal fragment, possibly torn across a bend at the wider end and definitely incomplete at the narrow end. The sheet is curved longitudinally and to a lesser extent laterally. It is damaged along one long side with a section torn away at the wider end. The margins of the long sides have been punched from the underside with circles en repoussé. The pressure of the punch was unevenly applied so that most of the circles appear as raised or even stamped out crescents. The same punch was used to stamp out a circular hole away from the edge at the wider end and to make three further holes along the undamaged edge (similar perforations would be disguised by the damage on the opposite side). These holes were presumably for attachment. A decorative six-petalled rosette has been incompletely stamped out of the centre of the object. Length 105m, maximum extant width 46mm, thickness <0.5mm.

Fig. 13.2. (1). Area 1, layer 3056, SF102 Brooch. Simple one-piece brooch of Nauheim derivative type. The bow is triangular in section with punched decoration along the apex. The 4-coil spring has an internal chord. The pin and catch-plate are complete. The bow section, internal chord and solid catch-plate suggest a date of c. AD40-75, significantly earlier than any other dateable small finds from this site. Length 60mm.

Fig. 13.3. (5). Area 2, midden seg. 4039, SF202. Strap-end of hybrid amphora/heart-shaped form with a central decorative double ring-and-dot motif. Part of the component which originally linked the strap-end to its belt survives *in situ*. This particular form of strap-end can be dated to *c*. AD370 – 400+ and belongs to a well-documented class of late Roman belt-fittings (*cf* Simpson 1976 and Clarke 1979, 264-291). Length 46mm, width 24mm.

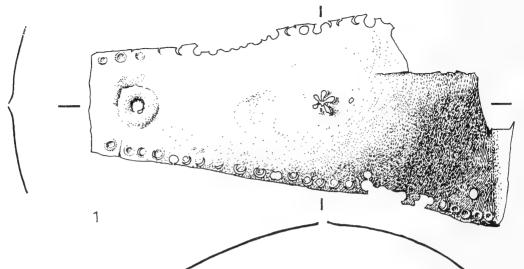
Fig. 13.4. (7). Area 2, Pit F4225, context 4239. Incomplete spoon comprising the stem and a small part of the bowl, now torn, which was originally large and oval. The sub-round-sectioned stem tapers to a point and near the bowl it widens to a rectangular section with two small notches on the upper face marking the change of section. It is joined to the bowl by an offset volute. The stem is now distorted into a serpentine shape that, perhaps not by chance, is extremely comfortable to hold between the thumb and forefinger with the bowl facing up. AD 4th century. Length 91mm.

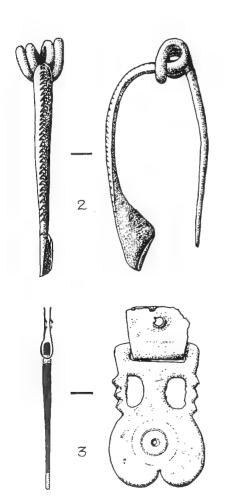
Fig. 14.2. (9). Area 2, Pit F4225, context 4226, SF268. Six conjoining fragments of decorated sheet metal strip. Together they form a complete flat, oval, penannular object decorated with punched dots along the outer edge. A larger hole has been punched in the outer corner of each terminal. This object was folded up before deposition and has fragmented along the folds. Maximum external \emptyset 165mm, maximum internal \emptyset 140mm, gap *c*. 80mm, width 13mm.

Objects 9 and 10 (Fig. 13.1 and 14.2) are very similar in material, manufacture and style. As they also come from the same context it is likely that they are components of one larger object. Although no parallels for either object have been found, it is suggested here that 9 is a collar, perhaps originally attached to the neck of a garment such as a tunic, and that the two larger holes originally held a cord or ribbon tied at the back of the wearer's neck.. If object 9 is a collar, 10 could also be a decorative appliqué for a garment and it is the right shape and size for an epaulette. Decorative stamped sheets are published as box or furniture fittings (cf Uley; Woodward and Leach 1993, 207, notably nos.1,8 and 20, fig. 153) but also occur in religious contexts as votive plaques (cfUley; Henig 1983c, 104-8, nos. 9-10, fig. 92; nos. 2 and 10, fig. 93) and have been discussed as sceptre mounts (King Harry Lane; Stead and Rigby, 27-9, nos. 146-7, fig. 17). It is tempting to see 9 and 10 as items of regalia, perhaps of a priestly nature. Stylistically these objects belong in the late Roman period.

Not illustrated

Object 3. Area 2, midden seg. 4024, SF221. Fragment of a heavily corroded bracelet of upright rectangular section with a notched top. Strip bracelets with a variety of incised





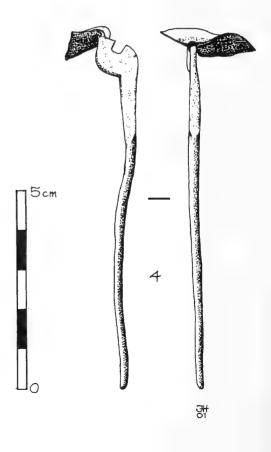


Fig 13 : Miscellaneous small finds

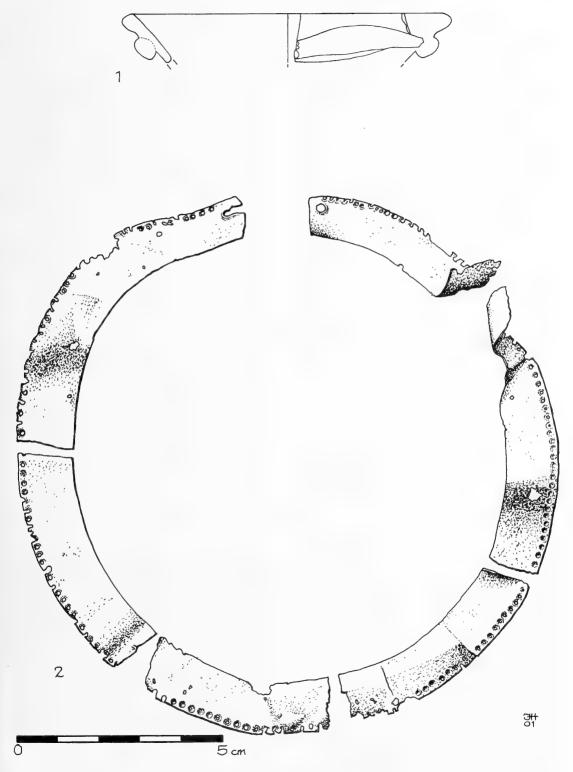


Fig. 14 : Miscellaneous small finds

decoration where the bracelet is widest from front-to-back rather than side-to-side, belongs to a type discussed in Webster 1992, 45, nos. 274-7. Late AD3rd -4th century. Length 40 mm, section 2 x 1mm.

Object 8. Area 2, midden seg. 4238, SF231. Six fragments of a spoon with traces of white metal plating, probably of the same type and date as 7 above. There are five fragments from around the rim of the bowl. The other piece comprise a trace of the bowl, the offset volute and perhaps a third of the original length of the stem. The offset may originally have been a pierced disc rather than an open volute but is now too corroded for identification. Largest bowl fragment 22 x 17mm, length of stem 42mm.

Object 11. Area 2, midden seg. 4026, SF250. Ring of facetted section. External Ø 25mm, internal Ø 19mm.

Object 12. Area 2, Pit F4225, context 4226, SF237. Sub-round disc cut from sheet metal and pierced with central hole. It is probably a washer but could be part of a larger object (such as the suspension loop of a toilet implement or the terminal for attachment of a small handle). 9.5 x 8.5mm.

Object 13. Area 2, Ditch F4294, seg. 4075. Tapering strip of sheet metal, bent at 45° angle, with solder on both faces of the wider end. Possibly a pointer (*cf* Canterbury Marlowe Car Park; Garrard *et al* 1995; 1036, no. 455, fig. 441). Maximum width 7mm, overall 28 x 24mm.

CATALOGUE OF LEAD

Illustrated

Fig. 12.4. (Object 15). Area 2, midden seg. 4016, SF312. Irregular off-cut from a moulded object. 37 x 17 x 9mm.

Fig. 12.6. (14). midden seg. 4022, SF245 Die. Cube with chamfered edges and the numbers marked by punched dots. The face of the number one has been gouged out. The numbers on opposing sides add up to 7 in the typical Roman fashion, still in use today, although less common in the medieval period. The configuration is type Aii (Brown 1990, 692-4). Two Roman lead dice, one of 4th-century date, came from the Bancroft villa (Bird 1994, 347, no 311, fig. 174 and Williams and Zeepvat 1987, 146, no. 203, fig. 47). 16 x 16 x 16 mm.

Not illustrated

Object 16. Area 2, midden seg. 4018, SF315. Two conjoining fragments of an object, possibly a pot rivet. $26 \times 17 \times 5$ mm and $24 \times 11 \times 8$ mm.

Object 17. Area 2, midden seg. 4055, SF197. Two conjoining fragments of an object, possibly a pot rivet. 23 x 19mm, maximum thickness 4 mm.

Object 18. Area 2, Pit F4225, context 4239, SF379. Leaf-shaped fragment, probably an off-cut. One curved edge appears to be original. 58 x 30 x 8mm.

Object 19. Area 2, midden seg. 4016, SF248. Irregular

off-cut of triangular section. Length 74mm, maximum section 17 x 9mm.

Object 20. Area 2, midden seg. 4016, SF311. Irregular, slightly twisted off-cut. 57 x 16 x 15mm.

Object 21. Area 2, layer 4091, SF258. Irregular offcut of thick, L-shaped section. $34 \times 27 \times 18$ mm.

Object 22. Area 2, midden seg. 4039, SF199. Splash of molten metal, poured onto an uneven surface such as stone. The upper face is smooth and the edges rounded. The edges have been roughly nicked. $60 \ge 22 \le 6mm$.

Object 23. Area 2, midden seg. 4027, SF209. Thick, irregular and slightly domed lump. Possibly formed when the molten metal was poured into a rough vessel or crucible. \emptyset 65 mm, height 18 mm.

Object 24. Area 2, midden 4255, SF265. Splash. 57 x 45 x 8mm.

Object 25. Area 2, midden seg. 4020, SF316. Splash. 26 x 17 x 3 mm.

Object 26. Area 2, midden seg. 4022, SF322. Small lump. 21 x 18 x 12 mm.

CATALOGUE OF WORKED BONE

Fig. 12.5. (Object 27). Area 2, Pit F4225, context 4239, SF267. Two conjoining fragments of a decorated bone strip for inlay on a box or similar. The flat strip is incised with a row of double ring-and-dot motifs bordered by two parallel grooves along each edge. The inner groove on one edge has regularly spaced diagonal slashes cut across it. One end is mitred and the other is broken. There are no holes for attachment. This type of mount occurs in contexts from the 4th century (Richborough; Henderson 1949, 152, no.276, pl. LVII and Wilson 1968, 106, no. 225, pls. LXI-LXII) onwards into the medieval period (*cf*York Minster; MacGregor 1995, 419-20, nos. 11.6-14, fig. 158 for 12th-century and earlier examples). Length 46mm, width 21mm.

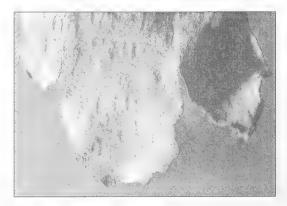


Plate 6. The inscribed lead fragment (maximum width 78mm). By permission of Wiltshire County Council Libraries and Heritage.

CATALOGUE OF SHALE OBJECTS

Object 28. Area 2, midden 4255, SF323. Small fragment of a shale armlet of plain oval section with a residual ridge around the inner face. This was an above average size armlet with an original internal diameter of 60-80mm (Lawson 1976, 248). Roman. Section 6 x 3mm, length of fragment 12mm.

THE INSCRIBED LEAD FRAGMENT by R. S. O. Tomlin

An irregular fragment of crumpled lead sheet (Plate 6), 78 by 60 mm, c. 1 mm thick, was recovered from midden context 4055. Its surface is thickly patinated with corrosion products, presumably lead oxide and lead carbonate. The edges are all broken except for the top left-hand corner, the top righthand corner, and part of the right-hand edge, which are original. To judge by this top right-hand corner, the fragment is part of an irregular rectangle with rounded corners trimmed from a piece of hammered lead sheet. There is a possible nail hole in the bottom edge, but unlike most 'curse tablets' it has not been deliberately rolled or folded. Otherwise it resembles a 'curse tablet', since both faces are inscribed with Roman cursive letters, the whole of one with 12-13 lines of closely-packed writing, and the top of the other with 2-3 lines (actually two lines of cursive, with 2-3 more letters resembling IVM, inscribed with a finer point below the end of the second line.)

The text is difficult to transcribe. The letters are somewhat crude and angular, they tend to overlap other letters above and below, they are shallowly incised and often damaged by corrosion. In consequence there is no run of more than 3-4 intact letters at a time, and there are no obvious 'curse tablet' formulas as an aid to restoration. The letters are often ambiguous or illegible, but there is enough variety in their forms to exclude the possibility that this is a pseudo-inscription, nor does it seem to be an encrypted text with letters in mirror-image, for example, or in reverse sequence. Whatever its content, it gives the strong impression of being a 4th-century text: there are examples of what seem to be the 4th-century forms of A, E, M, N, R and S; and the forms of letters which seem to be L, Q and V are all consistent with this dating.

There is also a well-preserved sequence in line 4 of TER, in which the letter-forms and the ligature of T and E are typically 4th-century. There is also a corresponding absence of the earlier forms of all these letters. Two letters helpful for dating have not yet been identified, B and P, both of which change markedly between the 3rd and 4th centuries.

Single letters and pairs of letters can often be read, but not yet whole words which would guarantee the reading. There is the sequence TER already mentioned; the previous letter, if any, has been lost in damage; the letters are followed by what seems to be another R. At the beginning of line 6 there is a sequence which can be read as QVI[.]OC, presumably *qui* [*h*]*oc*. It would suggest the formula *qui hoc involavit* ('the person who stole this'), but this cannot be read.

Further study is thus required. For the moment it can only be said that the tablet seems to be a fluent but poorly-written Latin text of 4th-century date, a 'curse tablet' presumably. In Britain these messages to the gods are mostly found at templesites in Gloucestershire, Wiltshire and Somerset. For a large and representative sample see those from Bath, published in B. Cunliffe (1988). Work to decipher the text is still ongoing and a separate note will be published in due course.

THE IRON AGE AND ROMANO-BRITISH IRON OBJECTS by J. M. Mills

INTRODUCTION

The excavations yielded 279 objects of which four are of Iron Age date or type: a knife and a large nail from infilled Iron Age pits on Area 1 and two midlate Iron Age pins with scrolled heads from the Area 2 midden. In general iron objects are not easily dated and consequently the late date for the midden deposits shown by coin and pottery dates cannot be corroborated. Equally other objects from the midden may be residual but none are characteristically Iron Age in form. The extensive midden deposits of Area 2 produced a total of 130 ferrous items of Romano-British date. Of these 92 are nails and 38 are objects, including nine tools. The other deposits encountered on Area 2 produced 24 iron objects including 18 nails and a single identifiable object (Fig.16.1), a hasp. A small group

THE WILTSHIRE ARCHAEOLOGICAL AND NATURAL HISTORY MAGAZINE

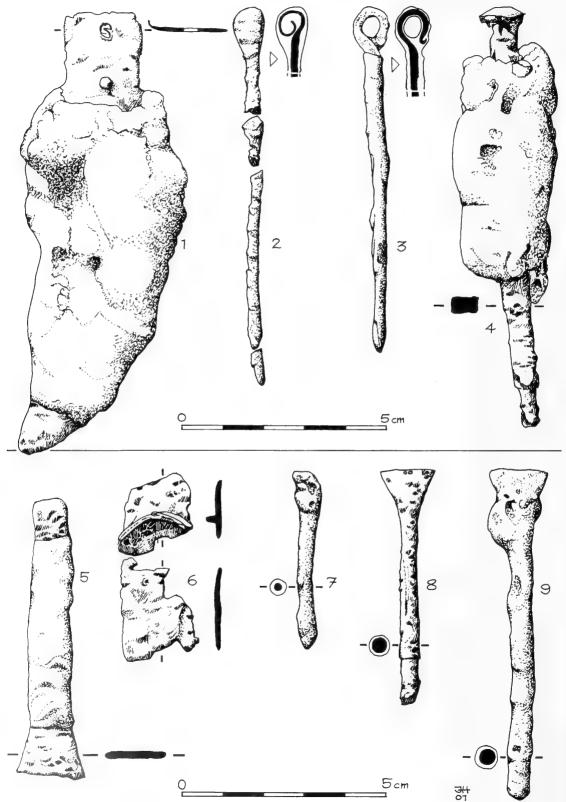
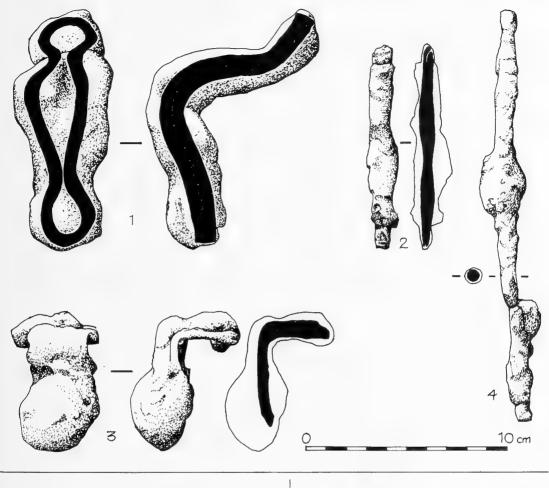
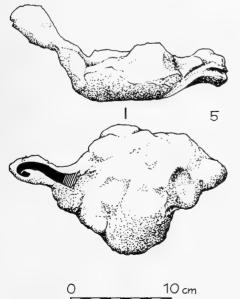


Fig. 15 : Ferrous objects

EXCAVATIONS IN 1999 ON LAND ADJACENT TO WAYSIDE FARM, DEVIZES





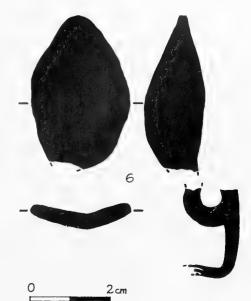


Fig. 16 : Ferrous objects

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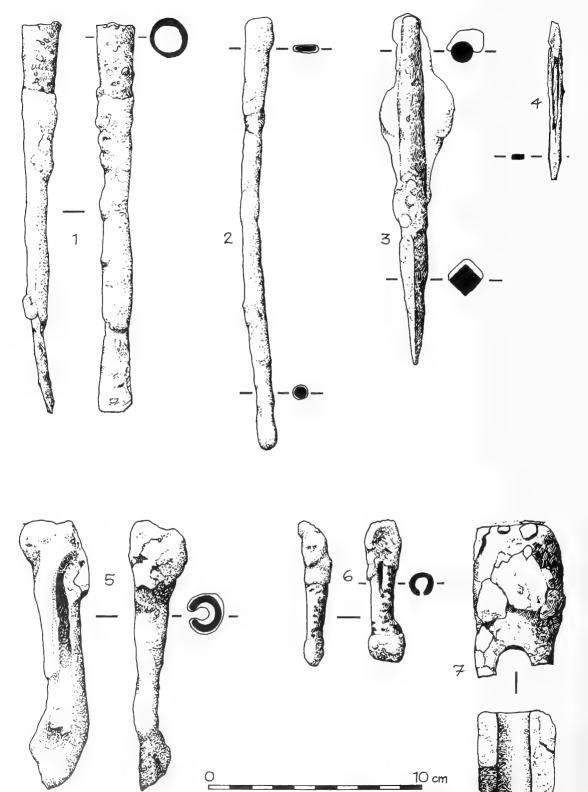


Fig. 17 : Ferrous objects

of four burials in Area 1 produced coffin nails (Object No. 78) and hobnails (41) and a single object, which *is* probably a spoon (Fig.16.06).

The group of material from the midden is exceptional for its high proportion of objects. Many of the objects from the midden derive from buildings (Structural and building metalwork Cat nos. 23-32), whilst others - tools, styli, the hipposandal and possible lock fragment and key fragment - may indicate a sophisticated settlement or other high-status activity site.

THE IRON AGE OBJECTS

The Iron Age Ironwork from Area 1

Only two iron objects were recovered, both derive from the infilling of later Iron Age storage pits. Pit F3037 yielded a small curved knife with a nailed/ rivetted tang (Figure 15.1). The tang has slight traces of flanging along one side. This type of knife is referred to as a Class 3 knife at Danebury (Selwood 1984, 349). The majority of knives from Danebury are dated to ceramic phases 7-8 (c.1st century BC).

The solitary iron find from Pit 3016 was a nail with a square, flat head; apparently chisel-ended, although the shank may be incomplete (Figure 15.4). Iron nails are not common Iron Age finds and presumably their use was specialised.

The Iron Age Ironwork from the Midden

Just two iron objects recovered from the midden deposit excavated on Area 2 were identified as being potentially Iron Age in date. Both are pins with scrolled heads (Figure 15.2 and 15.3), the former being more carefully finished than the latter. Both compare well with mid- late Iron Age pins from Gussage All Saints (Wainwright 1979) and iron pins from the Devizes Museum collections from Broadbury Banks, Wilsford and Stockton earthworks.

Catalogue of Iron Age Objects

Fig. 15.1. (Object 1). Area 1, Pit F3037, SF100. A small curved knife with a nailed/rivetted tang. The tang has slight traces of flanging along one side. Danebury Class 3 knife (Selwood 1984, 349), compare with examples excavated at Danebury (Selwood 1984, fig.7.10, 2.34 and Selwood 1991, fig 7.11, 2.234). Length 112mm.

Fig. 15.2. (4). Area 2, midden seg. 4047, SF344. Pin with circular-sectioned shank showing almost no taper at all, The scrolled head is formed from an expanded strip, but does not appear to be as carefully finished as 3. above. Length c.87mm.

Fig. 15.3. (3). Area 2, midden. context 209, SF2. Finely wrought pin with straight shank and delicately scrolled head. Length 86mm. Similar iron pins of Iron Age date are held in the Devizes Museum Collection (N. Griffiths pers. comm.).

Fig. 15.4. (2). Area 1, Pit 3016, SF101. Nail with a square, flat head; apparently chisel-ended, although the shank may be incomplete. Length 105mm.

THE ROMANO-BRITISH IRONWORK

The Romano-British Ironwork from Area 1

Area 1 yielded two iron objects, one, a hobnail, from ditch F3101 the other probably a fragment of ovallinked chain comprising at least two links from the buried soil 3098 (SF109). The other ironwork was recovered from the four inhumations excavated in the northwestern corner of the site. With the exception of one spoon (Figure 16.6), the assemblage from the graves consisted exclusively of timber nails from coffins and hobnails. The low frequency of ferrous objects and the presence of inhumations in Area 1 is notable and may reflect the distance from the settlement or activity focus.

Catalogue of Objects from Area 1

Object 5. Layer 3098, SF109. In very poor condition with little or no solid iron remaining. Appears to be at least two oval links. The poor condition precludes measurement.

The Iron from the late Romano-British Inhumations

The three graves containing human all aligned produced ironwork assumed to be associated with burials. A fourth feature (F3136) within this cluster yielded only a group of hobnails and a single timber nail. The timber nails from the inhumations are all flat-headed nails. No iron coffin fittings or grave goods with the exception of hobnails from boots or shoes and a spoon from Inhumation 2 (Cat no. 6, Fig. 16.6). Spoons from burials are very rare, and iron spoons from funerary contexts are even less common. It is possible that this is a unique find and until other examples are recognised it is not possible to make further comment. However, there are often Christian associations with spoons which cannot be dismissed.

This small group of burials appear to have many

of the characteristics of late Romano-British burials. Of the four, two were contained within nailed wooden structures, probably purpose- made coffins. All were accompanied by grave goods, objects deliberately placed with the burials which to aid the deceased during the journey to the next world or in the afterlife.

Inhumation 1

The central of a small group of burials, the grave cut contained the remains of an extended adult burial. A minimum of 25 timber nails (based on head count) were recorded. In addition, nine nail shank fragments were present, some of these, if not all, undoubtedly belong to the fragments with heads and probably do not represent further nails. The site plan (Figure 6) shows a pattern which may be interpreted as having nails at the corners of the 'coffin' and four diagonal lines of nails in an approximately zig-zagged pattern. This arrangement is suggestive of braces nailed diagonally across the planks somewhat in the manner of a braced door. A minimum total of 25 nails is higher than average for a nailed coffin if compared with burials of a similar date from Poundbury, Dorset (Farwell and Mollesson 1993) where the sample number is large. In fact the late Roman burials of Site C at Poundbury averaged only 12 nails per coffin. The nail plan mirroring the grave pit, tapers from one end to the other, the eastern end being the widest. It seems that the body had been decapitated, although it cannot be known if this was after death or was the cause of death; the severed head was placed to the south of the feet within the 'coffin' along with a complete pot. The foot bones do not survive, but on or close to the feet was a group of hobnails, which are undoubtedly the remains of boots provided for the afterlife. The feet were at the west end of the grave. It is possible that the coffin was mistakenly placed in the grave the 'wrong way' round, but this presumes that the deceased were Christian. Given that the coffin appears taper making the 'head' and 'foot' end distinguishable from each other, and that the burial is also a decapitation it is likely that the intention was to place the corpse with its feet to the east.

Inhumation 2

A grave containing an extended adult burial to the south of Inhumation 1. The grave had been disturbed at the southwestern corner by the later insertion of a land drain. It is probable that the land drain has disturbed to southwest corner of the coffin and consequently nails may be missing from this part of the grave. A minimum of 34 nails (based on head count) were recorded. In addition eight nail shank fragments were present, some of these, if not all, undoubtedly belong to the fragments with heads and probably do not represent further nails. The grave plan, although disturbed at the head end, seems to suggest a different style of construction from the 'coffin' for Inhumation 1. This example is heavily nailed at the head and foot end of the 'coffin' with at least 23 of the nails planned at the head or foot of the grave. The remaining nails which lie between the extremes of the coffin form no distinct pattern. A group of four seem to delineate the northern edge of the coffin, with another set grouped loosely in the centre of the southern side. Again there is no indication that any were used to secure a lid or top to the structure. The number of nails used in the construction of the coffin is again higher than the average, at least at Poundbury. This burial was accompanied by a complete pot, again close to the head, and a single coin below or in the left hand (see above), but no hobnails. At Poundbury, Dorset Dr Ellison notes a mutual exclusivity between coins and hobnails (Ellison in Farwell and Mollesson 1993).

A possible third object accompanying the body was recognised during the writing of this report. The object (Cat. No 6, Figure 16.6) appears, from the X-radiographs, to be an iron spoon. It was located close to the lower left leg. The object is in two pieces.

Inhumation 3

The northern most of the three rectilinear grave pits. This burial was apparently uncoffined as no timber nails were recovered, although jointed, pegged and/or glued construction methods are of course possible but archaeologically undetectable. The burial was accompanied by two groups of hobnails. The first (SF187), a group of 21 hobnails on or by the feet as Inhumation 1; the second a smaller group (SF163) of four hobnails close by the left elbow. Given that this burial appears to have been provided with a pair of boots, perhaps worn, it seems possible that this small group represents another, otherwise undetectable, object. Again at Poundbury hobnails were found in the vicinity of the arms, but whether those represented boots or another artefact type is unknown.

F3136

A small sub-circular cut located between Inhumations 1 and 3. The only items recovered from this feature were a single timber nail and a group of 14 hobnails (SF169) close to the northern edge of the cut.

Catalogue of Iron objects from Inhumations

Fig. 16.6. (Object 6). 3030, SF150. Probable fragmentary spoon comprising bowl and probable cranked shank fragment. The 'bowl' is oval, approximately 40mm long and 25mm wide. The 'handle' shank is bent and probably incomplete, with a C-shaped cranked section of stem where it joins the bowl.

THE ROMANO-BRITISH IRONWORK FROM AREA 2

The ironwork from non-midden contexts

The quantity of ironwork and the range of objects from the features underlying the midden and in the surrounding stripped area of Area 2 is very limited. Of the 24 pieces recovered 18 are nails or nail fragments, with the remainder comprising a group of three miscellaneous lumps or fragments, an incomplete small strip fitting fragment and a large, curving link or hasp (Figure 16.1). The object types and provenance by feature are summarised in Table 2 below. The group as a whole sheds very little light on the nature of the site, and as with Area 1, it seems that the ditches and other features are some distance from the main focus of the activity with which they are undoubtedly associated.

Catalogue of iron objects from Area 2 (non-midden)

Fig. 16.1. (Object 45). Area 2, F4288, 4096, SF 230. A fairly substantial iron link formed from an approximately rectangular sectioned iron bar 14mm

Table 2: Object type and provenance - ironwork from Area 2 (non-midden material)

Feature (Area 2)	Ironwork
'Clearance:	1 nail
Pit F4225:	2 x rod/nail shanks, 1 nail
0ven 4007 and	
associated stone spreads:	3 nails
Buried soils:	1 strip ?waste iron, 1 nail
Ditch F4200:	1 strip/fitting frag, 1 rod/nail shank
Ditch F4261:	4 nails, 2 rod/nail shanks
Ditch F4294:	3 misc lumps
Ditch F4288:	1 triple-looped hasp/link, 1 nail,
	1 rod/nail shank
Ditch F4254:	1 nail

deep and 7mm wide and joined with a lapped ?weld along one side of the central part. The link has been formed into a triple-looped link with the two end cells being smaller and approximately circular whilst the central cell is considerably longer. The link is strongly curved with the two end cells projecting almost at 90â from the U-shaped central portion probably a more complex form of the usual figure-of-eight hasp. Length c.134mm.

The Ironwork from the midden contexts

A total of 132 iron objects and fragments was recovered from surface of the midden and the excavated quadrants of the midden deposit. Two of these objects have been discussed above (Nos. 3 and 4) as probable Iron Age pins. Of the remaining 130 pieces 77 are nails, 15 are rods or nail shank fragments, and 38 are objects or probable object fragments. The proportion of objects to nails and nail fragments (c.1:2.5) is high, as nails usually outnumber other items by a much greater ratio than this.

Tools

The tool assemblage is large for the size of the overall assemblage and includes a possible hammer head (Object no. 7); three socketed tools (nos. 10-12) one of which is a 'pruning' hook and one possibly a socket-handled knife; two paring chisels (nos. 8, 9), one tanged and one socketed; a possible drill or auger bit (no. 13), a small ?leather- workers awl (no. 15) and a possible tool with a grooved end (no. 14), which is in poor condition and comparatively small.

Styli

Two incomplete styli, both with triangular erasers were recovered (nos. 16, 17) from the northeast area of the midden. One stylus (no. 17) seems, from the radiograph to have an ornate, moulded, shank. The presence of styli indicates some sophistication and literacy.

Pins

Two of the pins recovered from the midden are of probable Iron Age date (see above). A single brooch or buckle pin (no. 18.) of probable Romano-British date was recovered from the midden overlying Ditch F4254.

Items associated with transport

A single, complete hipposandal (no. 19) was

recovered from the northern end of the site. Hipposandals are not a common find in Wiltshire, another complete example from *Cunetio* is in Devizes museum (from Annable's excavations at *Cunetio*, cutting Z). They are usually thought to have been used when horses or mules were taken onto metalled roads.

Possible iron-working waste/bar iron

Despite the small quantity of iron-working slags recovered from the site three fragments of possible bar iron (nos 20-22) have been identified one of which is illustrated (Figure 16.2).

Structural ironwork

A total of six items in this category are strip or sheet fragments which may be fragments of bindings or similar (nos. 25-30). Timber dogs/clamps account for a further two objects (nos. 23, 24). A single small corner bracket, perhaps from a box or casket (Figure 16.3), and a large strap hinge or bracket fragment were also recorded (no. 32).

Miscellaneous and unidentified objects

A total of ten objects fall into this category and include single examples of shoe cleat, ring, washer or rove, featureless fragment, a possible lock fragment (Figure 15.6) and a possible padlock key fragment (Figure 15.05). The remaining three objects (nos. 39-41) are long narrow rods the largest two are over 200mm long, a single example is illustrated (Figure 16.4). It is possible that these are iron-working evidence, but may have a specific function which has not been identified.

Few of the objects can be dated with any certainty to the Romano-British period although styli and hipposandals are obvious exceptions. Several objects do have close parallels from dated Romano-British sites. These include many of the tools including the hammer and paring chisels and the other tools with socketed handles. The shoe cleat and large strap hinge fragment also have dated parallels. The condition of the ironwork, heavily corroded with a thick concreted layer of sand/soil surrounding them has hampered identification in some instances as has the lack of solid iron core noted in many objects which were cleaned. Some objects, the possible lock fragment (Figure 15.6) for example are too fragmentary for certain identification. The range of object type and the quality of many of the objects, the paring chisels (Figures 17.01 and 17.2) for example are noteworthy, and the presence of tools, styli, the

hipposandal and possible lock fragment and key fragment indicate a relatively sophisticated site.

Catalogue of Iron objects from the midden

Fig. 15.5. (Object 44). Area 2, midden seg. 4087, SF327. Strip object fragment. Tapering strip incomplete at both ends, possibly part of a barrel padlock key. Length c.70mm.

Fig. 15.6. (43). Area 2, midden seg. 4039, SF378. Object fragment comprising a strip or sheet of iron with a curving element at 90â. Reminiscent of lock cases. Compare with tumbler lock from *Verulamium* (Manning 1972, fig. 67, 66).

Fig. 15.7. (18). Area 2, midden seg. 4017, SF389. Brooch/buckle pin? Small pin with hooked end. Length 43mm.

Fig. 15.8. (17). Area 2, midden seg. 4033, SF351. A fairly ornate stylus, possibly of Manning's Type 2 (1985, 85-7). The tip is missing, but the point is clearly separated from the stem by a distinct shoulder. The radiograph indicates that there is a simple moulding at the junction of tip and stem, and if this is the case this example should be assigned to Type 4. The eraser is a short, broad triangle, and appears to be ornamented. Extant length 58mm.

Fig. 15.9. (16). Area 2, midden seg. 4017, SF225. Incomplete stylus with broad triangular eraser as 17 (below). Shank appears to be simple tapering, circular in cross-section. Compare with Manning's Type 1a (1985, fig. 24) which Manning suggests may be of first or early second century AD date. Whether this example has an eraser broad enough to be classed as Type 1a rather than Type 1 is debatable. Extant length 83mm.

Fig. 16.2. (22). Area 2, midden seg. 4139, SF345. Waisted rod or bar. Rectangular-sectioned the bar tapers along its length . Each end appears complete, although there is some uncertainty. Furthermore, each end appears to taper into a blunt point when viewed from the side. The radiograph, however suggests that the ends are irregular and split, and shows the central part of the bar to be narrowed or waisted. The irregularities, splits etc suggest that this may be a scrap of bar iron . Length 101mm.

Fig. 16.3. (31). Area 2, midden seg. 4233, SF239. Corner bracket with one rounded terminal and one plain. Length of arms 33 and 51mm, width 29mm. Probably from a small box or casket.

Fig. 16.4. (41). Area 2, midden seg. 4017. Long rod of almost even thickness, square in x-section. Length 210mm, section c. 7 x 6mm.

Fig. 16.5. (19). Area 2, midden seg. 4031, SF219. Complete hipposandal. A Type 1 hipposandal as defined by Aubert (1929), a classification continued by Manning (1985, 63-65). There is no evidence for grooving on the sole plate. This type of hipposandal is the most commonly found in Britain, ranging in date from the AD 1st to 4th

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century. Most hipposandals are found on town sites. Overall length: 214mm.

Fig. 17.1. (8). Area 2, midden seg. 4175, SF243. Paring chisel with socketed handle. The socket retains some mineral-preserved wood. Socketed handles are unusual for paring chisels but are normal on chisels which were used for heavier work. The thinness of the blade (3.5mm) confirms that this is a paring chisel. Length 187mm, diameter of socket 20mm, width of blade 10mm.

Fig. 17.2. (9). Area 2, midden seg. 4167, SF262. Long rod or bar beaten out at one end to form a thin strip comparable in dimension to the blade of the paring chisel from Hod Hill (Manning 1985, B30). The tang of this example is more slight than that from Hod Hill. Length 205mm, shank c. 6 x 6mm, 'blade' c. 12 x 3mm.

Fig. 17.3. (13). Area 2, midden seg. 4067, SF186. Large drill bit or auger with pyramidal tang. The shank below the tang shoulders is cigar-shaped. The end is broken and has been incompletely cleaned. The original form of the tool is unknown, but the pyramidal head indicates the general type of tool. The swollen shaft is unusual and may have a special function. Length 166mm, max. diameter c. 14mm.

Fig. 17.4. (14). Area 2, layer 4001, SF352. Tool, in very poor condition, the main body of the tool is heavily fissured and splitting although the tang end is in comparatively good condition.. Tapers to both ends, cleaning appears to show one end to have a U-shaped cross-section in the manner of spoon bits or gouges. This object, however, is almost half the size of tools of this type, so some doubt to its true shape, and function must remain. Length 76mm.

Fig. 17.5. (11). Area 2, layer 4001, SF232. Probable pruning hook, with open socket for handle, probably of Manning's Type 1 (1985, F44/45), that is with the blade set at right angles to the socket. This example is broken at the point where the blade bends. Functionally these small hooks would have served many uses in an agricultural or horticultural setting, from pruning to leaf cutting or even as small reaping hooks. Extant length 126mm.

Fig. 17.6. (10). Area 2, layer 4001, SF106. Incomplete socketed tool. The socket is open, the 'business' end is incomplete, but appears to be triangular in cross-section suggesting that this is a socketed knife. Although uncommon, similar knives are well documented. Compare with illustrated examples from the British Museum collections (Manning 1985, Q62-Q65) three of which are from London. Extant length 69mm.

Fig. 17.7. (7). Area 2, layer 4001, SF103. Large object, possible hammer head broken across eye. Romano-British hammers are not common, but large, sledge-hammer type hammer heads have been found. Excavations at Ickham, Kent produced a large, 4th-century hammer (N. Griffiths pers. comm.) and Manning lists three (1985, 5) which he suggested were smiths' tools. This example is from the clearance layer (4001) at the top of the midden deposit. It may be post-Roman, even post-medieval, but in association with other artefacts

recovered from this layer, there is a strong possibility that this is a Roman hammer head. Extant length 65mm, diameter of face c. 44 x 42mm.

Object 12. Area 2, midden seg. 4031, SF412. Socketed tool - socket only extant. The socket is an open one, and pierced by a single nail hole. The object is broken in such a way that it is not possible to determine what kind of tool this was. There appears to be mineralpreserved wood from the handle within the socket. Extant length 80mm, diameter of socket 17mm.

Object 15. Area 2, midden seg. 4024, SF341. ?Awl, double tapering. Of the type of small awl, fitted into wooden handles which would have been used by leatherworkers for piercing holes. Would possibly also work as a carpenter's bradawl. Length 40mm.

Object 20. Area 2, midden seg 4024, SF340. Tapering bar, incomplete at both ends. Could be a tool fragment or a fragment of bar iron. Length 81mm. Max cross section 7.5 x 7mm, min cross-section 6 x 3.5mm.

Object 21.Area 2, midden seg 4114, SF422. Bar, possible bar iron. Angled/irregular ends may indicate cut and torn when hot with a chisel. Maximum size c. 80 x 20 x 20mm.

Object 23. Area 2, layer 4001, SF105. Ferrulebinding/timber clamp bent into approximate square. No nail holes evident. The ends over-lap. Made from a strip c. $197 \ge 9 \ge 4$ mm.

Object 24. Area 2, midden seg. 4039, SF200. Clamp or timber dog. Central portion c. 89 x 9 x 3mm. Only one complete arm clenched over at tip, length 46mm.

Object 25. Area 2, layer 4001, SF360. Narrow, featureless strip. Length 62mm, width 5mm.

Object 26. Area 2, layer 4017, SF223. Sheet fragment 38 x 49mm (max).

Object 27. Area 2, midden seg. 4033, SF421. Two strip fragments, probably from same object; one bent at right angles at one end otherwise featureless. Lengths 44mm and 36mm, both 15 mm wide.

Object 28. Area 2, midden seg. 4047, SF386. Fragment which looks like a knife fragment on the radiograph, an identification which was neither confirmed or refuted on cleaning. Maximum dimension from radiograph 34×24 mm.

Object 29. Area 2, midden seg. 4216, SF384. Sheet/ strip fragment. Max dimensions 42 x 40mm.

Object 30. Area 2, midden seg. 4220, SF423. Strip/ binding fragment, bent at 90â. Extant length 52mm, width c. 15mm.

Object 32. Area 2, midden seg. 4017, SF228. Strap hinge or bracket fragment with ornate terminal perforated by a single nail hole. Similar to straps and bracket frequently found in domestic and funerary contexts (see Cunliffe, 1971, fig. 62, 61, Mills 1991, fig. 87, etc). Extant length 130mm, width of strap c.23mm.

Object 33. Area 2, layer 4001, SF112. Possibly a nail or, because of 'shank' being curved to form a circle, a swivel. Compare with Manning 1985, S4. Dimensions 40 x 25mm. Object 34. Area 2, midden seg. 4006, SF184. Ring. A common find with a variety of uses (cf Manning 1985, 140). 38mm diameter.

Object 35. Area 2, midden seg. 4065, 426, Double tapering rod with curled end in the manner which nail shank tips sometimes curl over. However, if this were a nail the shank would not taper towards the head end. It is probable, therefore, that this is part of a more complex object, The double tapering nature suggests awl, but awl ends are usually clenched, not curled over, if they protrude from the handle. Length 88mm.

Object 36. Area 2, midden seg. 4017, SF222. Square strip fragment or possible washer/rove, with central, circular perforation. 27 x 32mm, perforation c.9mm diameter. May not be Romano-British.

Object 37. Area 2, midden seg. 4021, SF403. Oval shoe cleat of common Romano-British type. Overall length c.50mm.

Object 38. Area 2, midden seg. 4028. Strip/bar, featureless. Appears modern rather than Romano-British. Dimensions 58 x 37 x 10mm.

Object 39. Area 2, layer 4001, SF104. Long rod, cross-section unknown. Approximately even thickness. Length 206mm. Thickness c.5mm (from radiograph).

Object 40. Area 2, layer 4001, SF113. Long tapering rod, cross-section rectangular at greatest end, but more rounded at finer end. Incomplete at both ends. Extant length 117mm, cross section tapers from 5×4 mm to 2.5 x 2.5mm.

Object 42. Area 2, midden seg. 4033, SF385. Fragment in very poor condition. Cleaning revealed no clear form or structure. Maximum dimensions from radiograph 41 x 35mm.

ROMAN GLASS by H.E.M. Cool

Three fragments of Roman glass were found both in the typical greenish bubbly glass of the 4th century AD. Only object 1 can be attributed to a form. It is the rim of a large funnel-mouthed jug or cylindrical bottle (see Price and Cottam 1998, 163, fig. 72 and 204 fig. 93). The fragment does not retain sufficient diagnostic features to attribute it to a precise form. The presence of a jug or bottle at Wayside Farm is of some interest as it is another example of the apparent preference rural sites seem to show for closed glass vessels in the fourth century (Cool and Baxter 1999, 89)

Fig. 14.1. (Object 1). Area 2, SF440. Rim fragment, jug or bottle. Funnel mouth, rim edge fire-rounded. Thick trail applied below rim edge. Rim diameter c. 75mm.

Object 2. Area 1, layer 3249, SF441. Two body fragments.

IRONWORKING SLAGS by J.M. Mills

Forty-four fragments weighing c.2kg were recovered. The assemblage comprised smithing slag, plano-convex 'hearth bottom' fragments, hearth lining, fuel ash slag and clinker. These are similar to those commonly found on sites of Romano-British date and are probably contemporaneous with the other artefacts recovered from deposits on the site. This relatively small quantity may be seen as a background scatter, given that 50% of the slag appears to have been imported to the site and deposited within the midden.

THE LATE IRON AGE AND ROMANO-BRITISH POTTERY

by Mark Corney

INTRODUCTION

The Iron Age and Romano-British pottery assemblage from the site totalled 3080 sherds (52,404g). Of this total 246 sherds can be ascribed to the later Iron Age to early Roman period, the remainder being of later Romano-British date. All of the sherds have been examined for this report and grouped according to fabric and form.

At an early stage of the examination it became clear that the assemblage falls into two distinct chronological groups. An early phase, probably falling between the 3rd century BC to the mid-late 1st century AD and a very late Roman group probably deposited during the first quarter of the 5th century. Both chronological groups are also indicated in the dating of the non-ferrous metalwork and coin assemblages. The large quantity of late Roman fine wares are dominated by products of the Oxfordshire Industry (Young 1977), supplemented by a smaller amount of New Forest Ware (Fulford 1975a) and provide a firm chronological series. As a consequence, the fine wares are dealt with in some detail to provide a dateable sequence and to allow the coarse wares to be developed into a regional late Roman type series. Although many of the contexts are actually

components of a single deposit, interpreted as a 'midden', particular attention has been paid to the fine wares to test whether the assemblage had the potential to indicate a chronology for the depositional sequence. Full details of all ceramic categories are presented in the tables within the archive report; detailed quantifications of material in the early pit groups (Table 3), early linears (Table 4) and the later midden (Table 6) are included with this publication.

METHODOLOGY

Examination of the ceramics concentrated on identifying the following characteristics: fabric, form, colour, surface treatment, decoration, sherd size and degree of abrasion, general condition and residues. Quantification is based on sherd count, weight and eves. The pottery was initially sorted according to fabric groups with a x10 hand lens supplemented by the use of a binocular microscope using a magnification of x20. Where applicable the fabrics have been coded according to the National Roman Fabric Reference Collection (Tomber and Dore 1998).

Where possible vessel forms have been identified and cross-referenced to other published regional and national type series.

THE LATER PREHISTORIC AND EARLY ROMANO-BRITISH MATERIAL

2460g (246 Sherds) of later Iron Age and early Romano-British ceramics were recovered. All are in generally poor condition, being fragmented and featuring few diagnostic sherds providing evidence of form. No complete profiles are present. Grogtempered Savernake Ware is present in very small quantities and is associated with otherwise clear later Iron Age material. Due to the highly fragmentary nature of the assemblage quantification is restricted to weight and number of sherds by fabric group (Tables 3 and 4).

The Fabrics

A) Later Prehistoric and Early Roman (c. 300BC-AD200).

Later prehistoric coarse wares. All of the later prehistoric fabrics at Wayside Farm can all be equated with the fabric series constructed by Timby for the adjacent site at Brickley Lane (Timby 2001a). For ease of cross-reference the Brickley Lane fabric numbers are retained here: CP2 being later prehistoric and CP3 being later prehistoric to early Roman. For Romano-British fabrics the National Roman Fabric Reference Collection codes (Tomber and Dore 1998) are used and the reader is referred to this work for full descriptions.

Later Prehistoric. CP2

S1 A fine and dense sandy ware, black or dark brown.

S2 Orange glauconitic sandy ware.

L2 Red-brown or grey with moderate spherical voids and red iron. Scatter of ill-sorted rounded, polished quartz. G1 Light grey/brown finely micaceous with sparse grog.

Late Iron Age-Early Roman. CP3

SAV GT SavernakeWare (Tomber and Dore 1998, 191). Early Roman Fine Wares: Samian

LEZ SA 2 Central Gaulish Samian (Lezoux) Tomber and Dore 1998, 32-3.

The Forms

The later prehistoric forms, where discernible, comprise saucepan and related forms (Figure 18, 1), ovoid jars (Figure 18, 2) and globular bowls (Figure 18, 3). A number of the sherds display burnishing on the external surfaces (mainly confined to vessels in fabric S1). No other form of decoration was noted on any the material and no residues were observed.

Context

The ceramic material from CP2-3 is derived from pits and ditches with no discernible difference in the material from either type of feature or deposit.

Pits

Fourteen pits produced ceramics of CP 2 (below, Table 3).

Ditches and linear features

Five ditches/linear features produced ceramics indicating a later prehistoric – early Romano-British date. Details of these are presented in Table 4.

Date and Discussion

The date range of the later prehistoric ceramics falls between the period of the 3rd century BC to the middle of the 1st century AD. This has been grouped here into Ceramic Phases 2-3. Material

CONT	EXT	FABR	IC										
F. No	Layer	S1		S2		G1		L2		BB1		SAV G	Т
		No.	Wt.	No.	Wt	No	Wt	No	Wt	No	Wt	No	Wt
3002	3003			1	8					1	10		
	3012					1	6	2	20				
3006	3007	12	310	5	45	2	25						
3008	3009					1	3	5	9				
3016	3017							12	186				
	3018							2	34				
3020	3021	15	170	1	6			4	24				
3022	3023	13	54										
3024	3025	3	4									1	2
	3026	2	4										
3027	3028	25	194										
3037	3038			1	3			3	3				
	3039	20	105					21	110	1	15		
3058	3059							2	64				
3066	3067							34	356				
3091	3092	13	64										
3125	3127	6	164										
3141	3142											1	10
TOTAI		109	1069	8	62	4	34	85	806	2	25	2	12

Table 3: Later Prehistoric -Early Romano-British pit groups.

Table 4: Later Prehistoric and Early Romano-British - Linear features.

CONTE	XT	FAB	RIC												
		S1		S 2		G1		L2		BB1		SAV (ЭT	LEZ S	SA 2
F. No	L.No	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt
3044	3090			1	2										
3050	3051	6	67			3	46	2	11						
3052	3053	5	61	2	28			1	9						
3071	3072			3	56							1	48		
	3073			1	6					1	12			1*	4
3099	3019	3	52	2	34					1	10				
3107	3108	2	4			1	2								
TOTAL		16	184	9	126	4	48	3	20	2	22	1	48	1	4
										*This is a	a chip an	d may be	e intrusiv	e in this o	context

ascribed to CP2 will include the saucepans, ovoid jars and globular bowls can all be paralleled at the adjacent site at Brickley Lane (Timby 2001a) and are well known across Wessex (cf Cunliffe 1991, 81; 151-2). The recognition of the fabric categorised as DOR BB1 probably represents ceramics from the Poole Harbour region (generally known as 'Durotrigian', Cunliffe 1991, 165-6) reaching the area in the last half of the 1st century BC and into the 1st century AD. This dating is supported by the other, non ceramic finds, notably the silver Iron Age coin SF233, from context 4205 and the Nauheim Derivative brooch SF102, from context 3056 (associated with one sherd of Savernake Ware). A recent reappraisal of Savernake Ware (Hopkins 1998) makes a pre-Roman origin for this industry, probably commencing c. 10BC-AD20, a certainty. This material, along with the Savernake products,

mark CP2, a phase that in all likelihood spans the late 1st century BC into the post-Roman conquest period. Although the incidence is low, the presence of Savernake Ware also supports Timby's observations for a pre-conquest origin of this industry (Timby 2001b). There is no reason from the ceramic viewpoint to see any hiatus between CP2 and CP3. The overall proportions of the CP2 and 3 fabrics are in general accordance with those observed by Timby at Brickley Lane (*ibid*.). The overall CP2 and 3 fabric totals for Wayside Farm are presented on Table 5. Apart from the chip of Central Gaulish samian from 3073 there is nothing in the ceramic assemblage that need be later than the later 1st century AD.

There are very few ceramic indicators for intensive Roman activity during the later 1st or 2nd centuries AD. A small quantity of samian (19 Table 5: Overall quantification of CP2 and CP3.





Fig. 18 : Later Iron Age pottery.

sherds), mostly Central Gaulish of 2nd century date from general layers implies activity in the vicinity but it is quite conceivable that much of this could have been deposited in the 3rd century.

Catalogue of illustrated later Iron Age sherds.

Fig.18.1. Context 3019. Fabric S1. Saucepan pot.

Fig.18.2. Context 3039 (fill of pit F3037). Fabric L2. Ovoid jar.

Fig. 18.3. Context 3031 (fill of pit F3020). Fabric S1. Saucepan pot.

Fig. 18.4. Context 3072 (fill of linear F3071). Fabric SAV GT. Globular bowl/jar with bead rim.

THE LATER ROMANO-BRITISH ASSEMBLAGE (CP 4)

The late Roman ceramics are derived from two principle types of context: 1) the midden, an extensive deposit that was sampled on a grid basis, and 2) ditches, pits and graves. This report concentrates on the material from these two types of deposit as they reveal potentially significant patterns on the nature of discard and status of the excavated area. Material from general layers is also present and details of the latter will be found in the excavation archive, although reference is made here to significant sherds of intrinsic value and interest.

The Fabrics

Late Roman Coarse Wares

ALH RE Alice Holt/Farnham reduced ware (Tomber and Dore 1998,138; Lyne and Jeffries 1979).

DOR BBI South-east Dorset Black Burnished Ware (Tomber and Dore 1998,127).

G S1 Sandy paste, well sorted with occasional rounded to sub-angular fine quartz.

G S2 Sandy paste with occasional mica flecks.

(GS1 and 2 are grouped together in the publication for quantification purposes, for detailed analysis the reader is referred to the archive report).

HAR SH Alias South Midlands Shell-tempered Ware (Tomber and Dore 1998,115).

OVH WH Overwey White Ware (Tomber and Dore 1998,146).

OXF WH Used exclusively for mortaria (Tomber and Dore 1998, 174-5).

OXID S1 As GS 1, but oxidised. Possibly from same (unlocated) source.

OXID S 2 As OXID S2, but less well sorted and a more 'granular' surface.

Late Roman Fine Wares

NFO CC New Forest (Metallic) Colour-coated Ware (Tomber and Dore 1998, 141).

NFO RS 2 New Forest (fine) red-slipped Ware 2 (Tomber and Dore 1998, 144).

OXF RS Oxford Red-slipped Ware (Tomber and Dore 1998,176).

OXF PA Oxford Parchment Ware (Tomber and Dore 1998,174-5).

CONDITION

The later Roman ceramics (CP4) are in a generally good condition with many sherds exhibiting fresh breaks and little sign of abrasion prior to deposition. Numerous cases of conjoining sherds were encountered although no significant spatial patterning was observed. The only exception being F4225, a pit sealed by and including midden material. This pit produced a significant and regionally important group of very late Roman ceramics (see below) with conjoining sherd present both within the pit and from adjacent midden sample areas. This pit is also partially sealed by midden deposits, and contained a coin of Arcadius, (SF 276; AD392-402 (see coin report) and is therefore of prime importance in dating the overall late Roman assemblage and the site.

The Oxford colour coat wares are generally in a good condition although some have lost much of their colour coat. As a consequence it is likely that a number of vessels may have had white-painted decoration that has not survived. This will have some chronological implications as the use of this medium is largely encountered after *c*.AD325-350 (Young 1977, 133) and on certain forms present at Wayside Farm, only after *c*.AD350. This is discussed further below in conjunction with the association with significant quantities of rosette stamped vessels.

All of the coarse grey ware sherds in fabrics GS1 and GS2 are also in a fresh condition and would suggest a relatively short period of deposition. An observation confirmed by other artefact groups.

THE LATER ROMAN FINE AND NON-LOCAL WARES

The Fine Wares

This is undoubtedly the most important component of the Wayside Farm assemblage and it has implications for the understanding of early 5th century Romano-British ceramics in Wiltshire. The homogeneous nature of the midden deposit and the internal consistency of the non-ceramic artefactual data in pointing to an early 5th century deposition date make this a group of great regional significance. The non-local products include a substantial proportion of Oxfordshire colour coated fine wares that, when viewed with the coarse wares (including Alice Holt and South Midlands shelltempered wares), provide a further insight to a ceramic supply pattern that is drawing upon relatively distant production centres to the east and north-east. The surprisingly low proportion of New Forest products in comparison to other late sites in Wiltshire underscores this geographical bias in the late Roman supply pattern to the region. It may also have a chronological implication.

The fine wares are dominated by products of the Oxford industry (Young 1977; 2000) and of the identifiable forms, those that post-date c.AD340/350 form a substantial component of the assemblage. Of especial interest are the hemispherical vessels decorated with rosette and demi-rosette stamps. These vessels, Young (1977) forms C78-9, C83 and C85 only become common after c.AD350 (ibid, 166-170) and the necked bowl of the C75 series is later than c.AD325. The condition of the colour-coat surface on the Oxford products from Wayside Farm is not good and it is highly probable that further chronological details, such as applied white paint decoration, will have been lost. On those forms where it was identified, notably C50 and C52, the traces of decoration were faint and fragmentary. This is unfortunate, as, in common with the stamped vessels, this is a trait that only becomes common after the middle of the 4th century.

The New Forest products, although not as common as those from the Oxford region, also display typologically late characteristics where the form can be attributed. The majority of the identifiable New Forest forms are of Fulford type 27, the basic indented beaker form dated c.270-400 (Fulford 1975; 2000), but are too fragmentary to allow identification of more diagnostic sub-types. However of the other confirmed forms, types 11/12, c.300/350+; 30, c.300/25-400+; 41, c.300-400+ and 50-52, c.320/50+ are present. In terms of the vessel forms, the New Forest examples are all closed forms, being either beakers or flagons/flasks. Fulford (1975) has made a strong case for the decline of the New Forest industry in the late 4th century. The low proportion of New Forest products at Wayside Farm can be interpreted as further evidence in support of an early 5th century date for the midden group.

The non-local coarse wares

These comprise 24.5% of the assemblage by weight and 17.37% by sherd number.

Oxfordshire White-ware mortaria (OX WH)

The Oxford White-ware mortaria forms, where identifiable, are all of Young type M22, including

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variant M22.16 (Young 1977, 76) a form that dominates the 4th century mortaria production (*ibid.* 68).

Black-burnished Ware (DOR BBI)

The Black Burnished wares represent 16.58% by weight of the pottery total from the midden deposit. This compares with 21% from all of the other contexts. The forms represented are all quite comfortable in a late Roman context and include (using the Greyhound Yard, Dorchester type series): type 3, developed everted rim jars (68%), type 9, handled jars with beaded rims (2%), type 20, straight-sided and plain-rim dishes (8%), type 22, flat-rimmed bowls/dishes (2%), type 25, droppedflange bowls/dishes (18%) and type 28, indented beakers (2%). Of these forms, the type 3 everted rim jars, type 20 and type 25 bowls/dishes dominate. In Dorchester, several of the above forms, types 3, 9, 25 and 28 are current into the early 5th century (Woodward et al. 1993 229-83; Andrews, forthcoming).

South Midland Shell-tempered Wares (HAR SH) Although only two vessels of this ware are present (13 sherds, 475g), its presence is deemed to be a further significant chronological indicator. There appears to be a general trend in which this distinctive fabric type (along with the Overwey/ Tilford products – see below) occurs further from the point of manufacture towards the very end of the Romano-British period. This point is discussed further in the general discussion on supply and marketing patterns.

Overwey/Tilford Wares. (OVH WH)

Like the shell-tempered wares, these products are present in small quantities (7 sherds weighing 360g and representing four vessels). The forms represented are also late chronological indicators and include the classic late Roman hooked-rim jars of Lyne and Jeffries (1979) type 3C.11, production of which is estimated to have continued into the early 5th century (*ibid.* fig. 29). The fabric is equivalent to Portchester 'D' ware a fabric that first appears at Portchester after *c.* AD325 and only increases in frequency after *c.* AD345 (Fulford 1975b).

Alice Holt Reduced Ware (AH RE)

In common with the above two fabrics, (HAR SH and OVH WH) confirmed products of the Alice

Table 6: Midden deposits (including pit F4225).

Fabric	Weight (gm)	Weight %	No. of sherds	% by no. of s	Types/ Forms	eve	eve %	Comments/ references.
Samian (CG & EG)	282	1.12	19	1.14	Drag. 30; 18/31; 31; 37; 38; Lud. Tg.	N/A	N/A	Residual
OXF RS, PH	7348	29.30	441	22.86	C8, 20, 22-3,45, 50-52, 75, 78-9, 81, 83-85, 97, 100. P24-5	59.6	40.7	For forms, Young 1977.
NFO CC, RS	868	3.46	53	2.74	11/12, 27, 30, 41.	15.3	10.5	For forms, Fulford 1975.
Total fine wares	s 8498	33.88	513	26.74		74.9	51.2	
OXF WH	589	2.34	20	1.03	M22, 22.16	3.8	2.65	For forms, Young 1977.
DOR BB1	4158	16.58	276	14.19	2, 3, 9, 20, 22, 25, 28. (Greyhound Yard series).	21.7	14.85	For forms, Woodward et al 1993.
GS 1 & 2	5732	23.00	690	35.79	3, 20, 25	28.9	19.75	
OXID S1	2970	11.87	323	16.74	3, 20, 25	5.8	4.05	
OXID S2	656	2.61	56	2.90	3, 25	2.4	1.64	
HAR SH	475	1.89	13	0.67	3	1.8	1.23	For basic forms, Tyers 1996, 193.
SAV GT	1040	4.14	9	0.46	Large storage jar	0.6	0.19	? Residual
AH RE	381	1.51	20	1.03	3B, 5B.	2.4	1.64	For basic forms, Lyne & Jeffries, 1979.
OVW WH (alias 'Portches	360 ster D').	1.43	7	0.35	3C.	3.8	2.61	For basic forms, Lyne & Jeffries, 1979.
АМРН	190	0.75	2	0.10	Class 27	0.3	0.19	Peacock & Williams 1986, 142-3.
Total coarse wares	16551	66.12	1416	73.26		71.5	48.8	
GRAND TOTAL	25049	100	1929	100		146.4	100	

Holt/Farnham industry are rare but of significance in dating and marketing patterns at Wayside Farm. 20 sherds, weighing 429g and representing three vessels have been recognised, including material from contexts other than the midden. The two identifiable forms, 3B and 5B are part of the late Roman repertoire at this production centre (Lyne and Jeffries 1979) and have the characteristic white slip over the upper part of the vessel in the case of the everted rim jar, type 3B and a dark grey slip on the bowl, type 5B. These types, when taken in conjunction with the shell-tempered wares and the Overwey/Tilford products, form a distinctive late Roman cluster where these products occur some considerable distance from their source (see discussion below).

LOCAL WARES

These comprise 36.10% of the assemblage by weight and 62.2% by sherd number.

The Grey Wares

Two grey sandy fabrics, GS 1 and GS 2 dominate the local wares. Of these, GS 1, the finer of the two fabrics, is by far the most prevalent, comprising of just over 80% of the grey wares and everted-rim jars and drop-flange bowls dominate the forms (52% and 34% respectively). For ease of convenience, the form numbers used here for these products are the same as the BBI series from Greyhound Yard, Dorchester. An additional form, a simple pedestal-base beaker, is known in this fabric and occurs in 'midden' deposits and in association with the late Roman inhumations (below, Fig. C, nos. x-x). The source of the grey wares is uncertain, but may be in the Swindon area.

The Oxidised Wares

Two oxidised sandy fabrics, OXID S1 and S2 have been noted. Neither occurs in particularly large quantities and fabric S2 is only present in midden context 4017 where two vessels, a drop-flange bowl and a cavetto or hooked-rim jar with body rilling are present. As with the grey-wares, the source is unknown but presumed to be local.

FORMS

The identifiable forms from the midden and other late Roman contexts are, in the case of the coarse wares, dominated by jars and bowls. The fine ware assemblage shows greater preference for bowls with only a small number of closed forms such as beakers or flagons.

Fine Wares

The fine ware assemblage is dominated by products of the Oxford industry. This centre supplied over 85% of the late Roman fine wares at Wayside Farm, the remainder being supplied by the New Forest industry. The forms represented are presented below in Table 7.

It is clear that bowls dominate the assemblage with closed forms such as flagons and beakers making a notably small proportion of the overall totals. Of the bowls, the forms are relatively evenly divided between the hemispherical bowls such as Young types C51, C75, C78-9, C83 and C85 and the shallow bowls of the C45 series. Of the latter class, many of the rims are noticeably thickened, a feature that Young has classified as a separate class, C46 (Young 1977, 158) and dates to after c.AD340 (*ibid.*). Of the bowls present the majority (91%)are in the standard Oxford red-slipped fabric (OXF RH) with remaining 9% being 'Parchment Ware' (OXF PH) with red-paint decoration. A very noticeable feature of the fine wares is the preference for New Forest products for the supply of flagons and beakers. All of these are in the purple gloss or darker colour coat variants. No New Forest redslipped products are present.

Decoration

The decorative motifs found on the fine wares have already been mentioned above. They are of standard types discussed by Fulford (1975) and Young (1977) and range from white or red paint to impressed stamps of rosette or demi-rosette type. No unusual variants of these decorative styles were noted. Attention however should again be drawn to the large number of OXF RS bowls with impressed rosette and demirosette stamps, as this is a clear chronological benchmark for late 4th to early 5th century groups.

Mortaria

Mortaria form a very small percentage (4.3% eve) of the late Roman assemblage and all of these are from the Oxford region. The colour-coated types C97 and C100 (6.2 eve) dominate this small category, with a smaller number (2.4 eve) of the white ware (OXF WH) products. Of the latter all, where the form can be identified, belong to Young type M22, the most common and widespread 4th to early 5th century mortarium product.

Table 7: Fine ware forms expressed as EVE's

	Flagons	Beakers	Bowls	Platters
EVE	3	12.2	71.5	2.8
EVE %	3.2	13.6	79.8	3.1

Table 8: Coarse ware forms expressed as EVE's

	Jars	Bowls/dishes	Beakers	Miscellaneous
EVE	82.8	18.8	3.4	6.2
EVE %	74.4	16.9	3.1	5.6

Coarse Wares

The coarse wares are dominated by jars, mainly everted-rim types with a smaller number of hookedrim types, followed by bowls/dishes of a restricted range of types. The forms for the coarse wares have been related to the Greyhound Yard type series (Woodward *et al.* 1993). Although devised for the DOR BBI fabrics, this type series encompasses all of the forms identified at Wayside Farm as is used here for convenience and to avoid an unnecessary duplication of a typology seriation.

Jars

Everted-rim jars (GreyhoundYard type 3) dominate this category (61.2% by EVE). These occur in fabrics DOR BBI, GS 1, GS 2 and OXID S1. There is a general tendency for the rims to be typologically late in profile, with the rim diameter being equal to or larger than the maximum diameter of the vessel body and have a generally flattened appearance.

Hooked-rim jars represent 21.6% by EVE of the total coarse ware assemblage. Occurring in fabrics AH RE, OVW WH and HAR SH, these are all recognisable very late Roman forms with fine horizontal rilling over the body of the vessel. None of the vessels of this type in fabrics GS 1 and GS 2 have the body rilling, although the feature is present on the single vessel of this form in fabric OXID S2.

Bowls/dishes

This category is represented by two principle forms; deep bowls with drop-flange rims (Greyhound Yard type 25) and shallow plain-rim dishes of type 20. Vessels of type 25 form 11.9% by EVE and type 20 5.0% by EVE. Type 25 is present in fabrics DOR BBI, GS 1, GS 2, OXID S1, OXID S2 and AH RE, with many examples having markedly well-developed and low flange – a feature noted as a late characteristic at Greyhound Yard (Woodward *et al.* 1993) – although the great variation seen in this very common late Roman form means that caution should be exercised in making too much of this

particular trait. The occurrence of type 20 is more restricted, appearing in fabric groups DOR BB1, GS 1, GS 2 with one example in OXID S1.

Pedestal-base Beakers

This is a rare form, comprising only 3.1% by EVE of the coarse ware assemblage. It occurs only in fabric GS 1 and two complete examples were recovered from late Roman inhumation burials F3129 (Inhumation 1) and F3131 (Inhumation 2). The type is crudely made and has a large pedestalbase, a wide, straight-sided body, and a rim of diameter similar to the base (Figure 22, 34-35). The form appears to be loosely based on beaker forms produced at late Roman fine-ware production centres such the New Forest form 27sp and Oxford forms C20, although lacking the indentations so characteristic of the fine ware prototypes.

Miscellaneous forms

In this category (5.6% by EVE) are flagons in GS 1, probably copying a well-known form produced at a number of late Roman production centres such as Alice Holt and the New Forest (Lyne and Jeffries, 1979, type 8.10-11; Fulford 1975, type 20); two handled tankards of Greyhound Yard type 9 in DOR BBI; an indented beaker of type 28 in DOR BB1 and one colander in GS1.

Discussion of the Fine and Coarse Ware Forms

The late Roman assemblage from Wayside Farm is not easy to interpret on the basis of the forms represented. The very high percentage of fine wares and general rarity of vessels such as mortaria, large storage vessels and colanders etc. would appear to suggest an atypical assemblage where forms normally associated with ordinary domestic activities are largely absent. This pattern and observation must be of significance in the overall interpretation of the excavated areas and is examined in more detail in the concluding discussion.

	OXF RS,PH	NF CC	OXF WH	DOR BBI	GS 1 & 2	OXID S1 & S2	AH RE	OVW WH	HAR SH
Midden Non-midden	40.7 27.5	10.5 2.5	2.6 1.8	14.8 20.8	19.7 41.3	5.6 5.6	1.6 0.4	2.6	1.2

Table 9: Comparative figures for midden and non-midden groups expressed as a percentage of total EVE's

Decoration

Decoration on the coarse wares is largely restricted to burnished obtuse lattice on the central body zone of type 3 jars; rilling on the central body zone of hooked-rim jars in fabrics OVHWH, HAR SH and OXID S2; white or dark grey slip over the rim of jars in fabric AH RE and random curvilinear burnished patterning on the base of bowls/dishes in forms 20 and 25 in DOR BBI.

MARKETING AND POTTERY SUPPLY AT WAYSIDE FARM IN THE LATER FOURTH AND EARLY FIFTH CENTURIES

The late Roman pottery assemblage from Wayside Farm can be confidently dated to the early 5th century (see below), and as such provides a rare insight into regional ceramic supply patterns at the very end of the Romano-British period. The character of the site is somewhat problematic given that the excavation examined only part (and probably only the periphery) of a much more extensive complex.

The most immediate pattern is the very large proportion of Oxford fine wares present. On the midden site these represent over 40% of the EVE total (Figure 23) and almost 30% by weight (Table 9). Added to this are the small number of shelltempered products from the South Midlands (1.23% of the EVE total), Alice Holt/Overwey kilns (2.61% of the EVE total, see Figure 23) and Oxford white-ware mortaria (2.6% by EVE). Taken together, production centres over 50km to the north-east and east of Wayside Farm were supplying almost 49% by EVE of the ceramics to the site. Local supplies, exclusively coarse wares with grey sandy products dominating, account for 25.5% by EVE of the supplies. The remaining ceramic categories (25.3% by EVE) can be sourced to production centres over 50km to the south of Wayside Farm in the New Forest and the Poole Harbour region (Figure 23). It is immediately apparent that nearly 75% of the pottery deposited in the midden at Wayside Farm had travelled a considerable distance to the site.

The patterns for non-midden deposits are slightly different, with a higher percentage by EVE of local coarse wares (46.9%) although the strong links to the north-east (Oxford region) and south (New Forest and Poole Harbour area) are still marked. The higher percentage in local supplies in non-midden deposits may be chronological, or, functional (see below). The variation between midden and non-midden supplies is presented above in Table 9.

Detailed understanding of these patterns is hampered by the lack of comparable, well-excavated and quantified assemblages from nearby rural sites and the local 'small towns' that must have acted as marketing centres. The nearest known 'small towns' are at *Cunetio*-Mildenhall (Corney 1997, 2001), some 20km to the east, and *Verlucio*-Sandy Lane, some 9km to the north-west. No Roman road link to either site is known in the Devizes area although such may reasonably be expected.

The pattern as discussed shows a very high proportion of pottery supply over 50km from the site. This pattern is beginning to recognised over a wide area of lowland Roman Britain, and is seen as indicative of a few production centres continuing to supply pottery after the collapse of local industries in the late 4th and early 5th century. The matter is discussed further below.

DISCUSSION, DATE AND CONCLUSIONS

The late Roman pottery assemblage from Wayside Farm is an important group for the region. The high proportion of fine wares from the Oxford region that can be relatively closely dated demonstrate that accumulation and deposition must have occurred after *c*.AD350/360. Indeed the number of distinctive late decorated hemispherical bowls with rosette and demi-rosette decoration may indicate a post AD370 date and the presence of such forms in association with scattered coin hoard of post AD370 date from Cunetio adds weight to this (Moorhead 1997). The presence of products from the Alice Holt/Overwey kiln complex and the South Midlands, probably Harrold in Bedfordshire, may indicate an even later date, quite possibly into the first quarter of the 5th century. Certainly there is growing evidence for the longevity of the late Roman repertoire from the Alice Holt and South Midlands production centres with products reaching increasingly distant centres (cf Going 1988, 70-71, in discussing changing trends in coarse ware production and supply in early 5thcentury Great Dunmow, Essex). Further and ongoing work in Essex and other parts of the country (Lyne pers. comm.) is beginning to show certain trends where the occurrence of Oxford colour coat products in association with Alice Holt/Overwey and shell-tempered wares may be a significant indicator of 5th century activity. It is argued that the coarse wares in such assemblages begin to occur further from their source as the established local suppliers begin to decline (SGRP, Newsletter 29). The highly regional nature of late Roman Britain makes direct comparisons with eastern sites tentative, however the general similarity of the pattern described with Wayside Farm is significant and, in the absence of comparable assemblages nearby, is noted here as of considerable potential importance. The numismatic and other special finds evidence from Wayside Farm supports an early 5th-century date for the midden deposits. Sixteen coins were recovered from the midden and associated pit, F4255. All are 4thcentury in date and include six Valentinianic issues of AD 364-78 and a moderately worn issue of Arcadius, minted AD392-402. It is argued that the overall composition of the late Roman assemblage is quantifiably internally consistent and that activity and deposition is restricted to a date range of c.AD370-420+. The ceramic group from the midden pit F4255 (Figures 19-21) is of especial note, containing the latest dateable coarse wares from the South Midlands, Oxfordshire and the Alice Holt/ Farnham region.

The non-midden deposits, as noted above, show slightly differing clusterings and proportions of fabric types. Overall these differences do not appear to be statistically significant and the main focus of late Roman activity in these deposits is still unlikely to have commenced before the middle of the 4th century. The higher proportions of fine wares in the midden deposit are more likely to indicate specific functional and status differences in the discard patterns on the site. Other recently excavated and published late Romano-British assemblages from Wiltshire show strikingly different patterns. At the extensive rural settlement on Butterfield Down, between Amesbury and Boscombe Down Airfield (Rawlings and Fitzpatrick 1996), late fine wares only accounted for 5.2% (by weight) of the total ceramic assemblage, these being almost evenly divided between Oxford and New Forest products.

At Figheldean, a probable villa and associated settlement (Graham and Newman 1993), the proportions are similar to those on Butterfield Down. Late fine wares represent only 5.2% (by weight) of the ceramic assemblage with Oxford products slightly better represented than those from the New Forest.

Whilst the late date of the Wayside Farm assemblage appears secure, the character of the site is more problematic. The absence of significant quantities of mortaria could, on its own, be seen as a chronological trait and support a very late date. However, the further absence of large storage jars and other 'everyday' domestic type vessels such as colanders, coupled with the high percentage of fine wares may also indicate a more specialised activity on or near the site. The unusual nature of many of the deposits recovered from pit F4255 (cf Bircher; Mills this volume) may be of a ritual character and it is conceivable that the excavated area is adjacent to a more specialised focus, perhaps a shrine. The true nature of the whole site can only be ascertained through further fieldwork. The ceramic assemblage however is of undeniable regional importance and the dating evidence of ceramics, coins and other special finds clearly marks the deposit as one that belongs to the very end of the Romano-British period.

Catalogue of illustrated late Romano-British pottery

Fig. 19.1. Context 4226 (fill of pit F4225). Fabric HAR SH. Hooked rim jar with horizontal rilling over body of vessel.

Fig. 19.2. Context 4226 (fill of pit F4225). Fabric OVW WH. Hooked rim jar with horizontal rilling over body of vessel and pale cream slip over external surface. Lyne and Jeffries form 3C.

Fig. 19.3. Context 4226 (fill of pit F4225). Fabric OVW WH. Hooked rim jar with horizontal rilling over body of vessel and pale cream slip over external surface. Lyne and Jeffries form 3C.

Fig. 19.4. Context 4239 (fill of pit F4225). Fabric GS1. Lid.

Fig. 19.5. Context 4226 (fill of pit F4225). Fabric

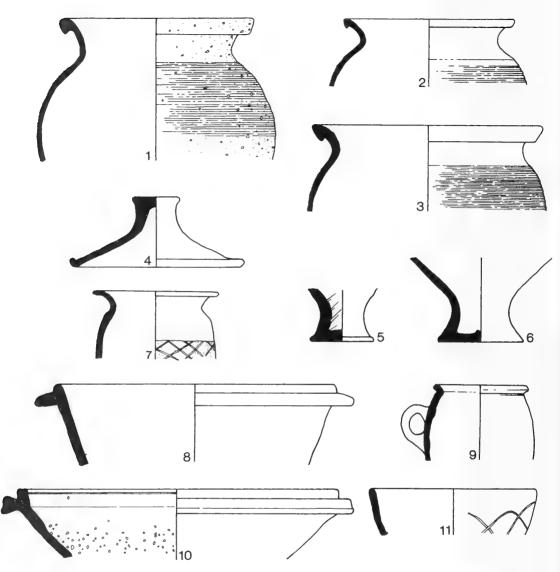


Fig. 19 : Late Roman coarse pottery from the midden and related contexts.

GS1. Pedestal base.

Fig. 19.6. Context 4226 (fill of pit F4225). Fabric GS1. Pedestal base.

Fig. 19.7. Context 4226 (fill of pit F4225). Fabric DOR BBI. Everted rim jar (Greyhound Yard type 3) with burnished lattice decoration.

Fig. 19.8. Context 4226 (fill of pit F4225). Fabric GS1. Drop flange bowl.

Fig. 19.9. Context 4226 (fill of pit F4225). Fabric DOR BBI. Handled jar (Greyhound Yard type 9).

Fig. 19.10. Context 4255 (midden quadrant) Fabric OX WH. Mortarium, Young M22.

Fig. 19.11. Context 4226 (fill of pit F4225). Fabric DOR BBI. Straight sided dish (Greyhound Yard type 20) with burnished decoration of intersecting arcs.

Fig. 20.12. Context 4239 (fill of pit F4225). Fabric OX RS. Hemispherical bowl with flange. Young C51.

Fig. 20.13. Context 4220 (midden quadrant). Fabric OX RS. Hemispherical bowl with flange. Young C51.

Fig. 20.14. Context 4226 (fill of pit F4225). Fabric OX RS. Hemispherical bowl with flange. Young C51.

Fig. 20.15. Context 4240 (fill of pit F4225). Fabric

OX RS. Hemispherical bowl with flange. Young C51.

Fig. 20.16. Context 4239 (fill of pit F4225). Fabric OX RS. Hemispherical bowl with flange. Flange decorated with white paint scrollwork and vertical strokes. Young C52.

Fig. 20.17. Context 4239 (fill of pit F4225). Fabric OX RS. Necked bowl with full curved body decorated with white paint scrollwork. Young C77.

Fig. 20.18. Context 4239 (fill of pit F4225). Fabric OX RS. Necked bowl with full curved body. The necked is ridged and rouletted. Young C75sp.

Fig. 20.19. Context 4255 (midden quadrant). Fabric OX RS. Necked bowl with full curved body decorated with vertical rows of impressed demi-rosette stamps. Young C78.

Fig. 20.20. Context 4239 (fill of pit F4225). Fabric OX RS. Wall-sided, bead-rim, carinated bowl. Rouletted below the rim and at the carination. A crude cross type graffito has been incised on the vessel. Young C81.

Fig. 20.21. Context 4226 (fill of pit F4225). Fabric OX RS. Necked bowl with full curved body. The lower part of the rim and the body are rouletted. Young C75.

Fig. 20.22. Context 4226 (fill of pit F4225). Fabric OX RS. Wall-sided, carinated bowl with a pair of cordons mid-way down the wall. The lower wall panel is decorated with impressed crescents. Young C84/85.

Fig. 20.23. Context 4001 (general midden clearance). Fabric OX RS. Wall-sided, carinated bowl with a pair of cordons mid-way down the wall and one (or more) handle. The upper panel is decorated with

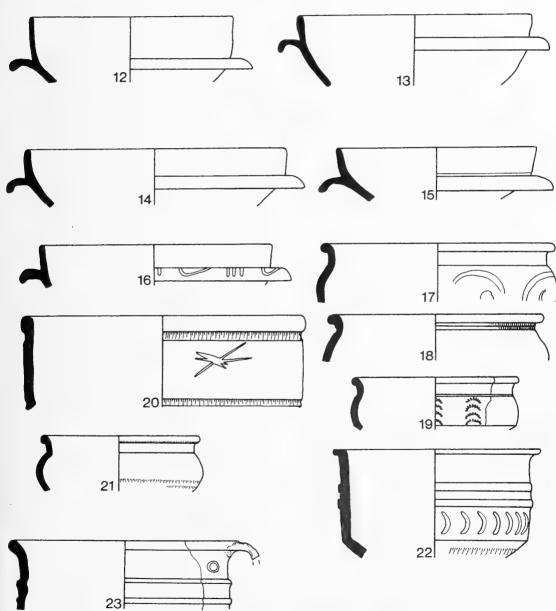


Fig. 20: Late Roman fine wares from the midden and related contexts.

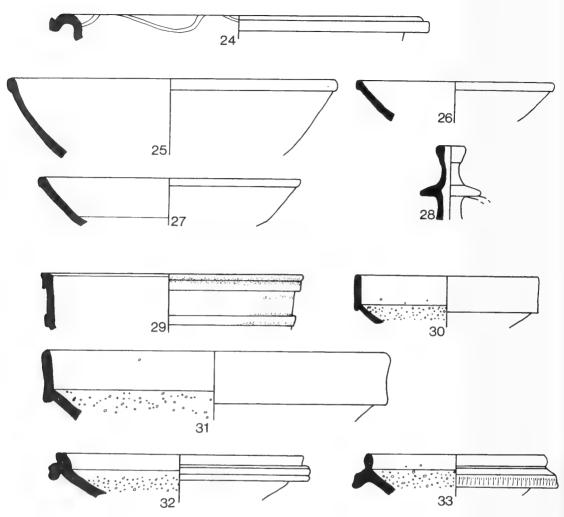


Fig.21:Late Roman fine wares from the midden and related contexts.

impressed roundel. Young C85.

Fig. 21.24. Context 4139 (midden quadrant). Fabric OX RS. Shallow bowl with out-turned rim with white paint scrollwork decoration. Young C50.

Fig. 21.25. Context 4226 (fill of pit F4225). Fabric OX RS. Shallow bowl copying samian form Dr31. Young C45.

Fig. 21.26. Context 4017 (midden quadrant). Fabric OX RS. Shallow bowl copying samian form Dr31. Young C45.

Fig. 21.27. Context 4239 (fill of pit F4225). Fabric OX RS. Shallow bowl copying samian form Dr31. Young C45.

Fig. 21.28. Context 4089 (buried soil). Fabric OX RS. Flanged neck from flagon. Young C8.

Fig. 21.29. Context 4085 (ditch fill F4072). Fabric OX PH. Wall-sided bowl with moulded rim and carination,

both decorated with red paint. Young P24.

Fig. 21.30. Context 4239 (fill of pit F4225). Fabric OX RS. Wall-sided mortarium. Young C97.

Fig. 21.31. Context 4226 (fill of pit F4225). Fabric OX RS. Wall-sided mortarium. Young C97.

Fig. 21.32. Context 4226 (fill of pit F4225). Fabric OX RS. Mortarium with upright rim and angular flange. Young C100.

Fig. 21.33. Context 4239 (fill of pit F4225). Fabric OX RS. Mortarium with upright rim and angular flange. The flange is rouletted. Young C100.

Fig. 22.34. Grave fill 3128 (F3129). Fabric OX RS. Miniature bulbous beaker, Young C102. Dated to 390-400+.

Fig. 22.35. Grave fill 3130 (F3131). Fabric GS1. Miniature bulbous beaker, copying Young C102. Dated to 390-400+.

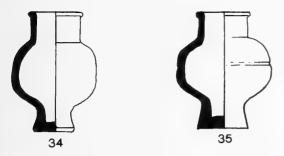


Fig. 22 : Late Roman miniature bulbous beakers from graves

CERAMIC BUILDING MATERIAL, DAUB AND FIRED CLAY

by Stephen Robinson

The excavation produced 164 pieces weighing 6.926 kg, these totals including 88 pieces of daub and baked clay weighing 1.090kg. All the material has been quantified, sorted into fabrics and types, measurements have been taken where possible and diagnostic attributes such as decoration and impressions have been recorded. This information is held in archive.

Ceramic Building Material types recovered are those characteristic of sophisticated Romanised buildings. Types recovered include tegulae and imbrex roof tile; pilae (brick) and box flue tile used in underfloor heating systems. However, no structural evidence for buildings was present in the excavated area. Of the material, 53.2% by weight was recovered from midden contexts.

All of the daub and clay is fragmentary with no vestige or shape. Only the remains of a smooth surface or a possible single wattle impression on some fragments was present. It is considered that the lack of insufficient characteristics on any of the pieces means it is difficult to indicate their function or use.

WORKED FLINT AND CHERT by John Valentin

Thirty-four pieces weighing 2810g were examined. Most of the material is greensand derived chert, reasonably fresh in appearance. Within the assemblage there are 26 pieces (31%) which

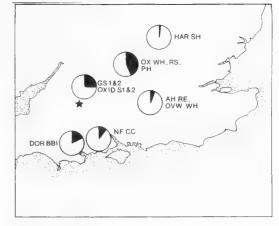


Fig.23 : Sources of pottery at Wayside Farm c370-400+. Proportions expressed as percentage of the EVE totals

seemingly derive from the preparation of flint/chert for walling. The remaining pieces are from the preparation and manufacture of tools during the prehistoric periods. The waste material generally consists of broad, heavy flakes, appearing crudely struck showing little initial preparation. A large quantity of the waste material was prepared using a hard hammer technique.

A single chert blade was recovered from pit fill context (4239) in Area 2, indicating an earlier, although obviously limited, Mesolithic component to the site. There are three diagnostic tools present, and one piece categorised as a retouched flake. These comprise two chert scrapers on flakes, a chert 'horseshoe' type scraper on flake, with neat, closelyset steep end retouch and a chert retouched flake.

The diagnostic elements within the assemblage are characteristic of prehistoric flint and chert production. The scrapers are likely to derive from the latter part of the Neolithic period or later. Waste flakes and cores are also indicative of later prehistoric production. Pieces show little preparation and most are broad and heavy flakes, suggesting a Bronze Age or later date for most pieces.

STONE by M. Laidlaw

INTRODUCTION

The stone retained from the site comprises nonlocal stone, burnt stone and stone classified as portable objects. A total of 194 fragments weighing c.35kg was recovered, and with the exception of five burnt fragments recovered from an Iron Age pit, the remaining pieces were retrieved from Roman deposits, particularly from the midden layers in Area 2 (127 fragments).

QUERNS

22 fragments are derived from quern stones including three fragments of saddle querns and three fragments derived from rotary querns, the remaining fragments are too small or lack diagnostic features to attribute them with certainty to a specific form of quern. The quern stone fragments all have at least one worn and smoothed surface or roughly hewn outer edge, and are in a hard, micaceous ferruginous sandstone ranging in thickness from 16mm to 32mm. Two of the saddle quern fragments have both faces smoothed. The fragments of rotary quern include one lower stone (70mm thick) and one upper fragment (80 mm thick).

Thirteen quern fragments including two saddle fragments and one rotary quern fragment were recovered from the midden deposits. The remaining fragments were recovered from pit F4225, the stone structure F4007 and ditches F4261 and F4288.

STONE ROOF TILE

124 stone fragments derived from stone roofing tiles were recovered. With the exception of two greensand tile fragments the remainder of fragments are in a hard, micaceous ferruginous sandstone (Old Red Sandstone), the nearest source being the Mendip Hills approximately 30km south-west of Devizes.

There are no complete examples present, although a single large fragment has a surviving nail fixing hole with a diameter of 8mm. This piece has two roughly hewn sides surviving, suggesting a typical lozenge shape. The tile fragments range in thickness from 8mm to 30mm, with an average of 16mm.

The bulk of the tile fragments was recovered from midden deposits (102 fragments). The remaining fragments were dispersed in small quantities mainly within pits and ditches of Area 2, and slight concentrations were found in ditch F4261 and pit F4225 (5 and 7 fragments respectively).

OTHER STONE

The other stone fragments comprise one rubber and three possible utilised objects, 42 burnt fragments and one unworked fragment of lias limestone. The rubber from ditch segments 3040/ 3042 in Area 1 is circular in shape and in a fine grained sandstone. The possible utilised objects comprise a smoothed pebble from ditch F2109, one domed greensand fragment from layer 2102 in Trench 21, and one unidentified sandstone object with two parallel grooves, possibly a whetstone, from ditch segment 4072 in F4261. The burnt stone consists of unworked fragments in greensand (19), sandstone (18) and limestone (5) and was mainly recovered in very small quantities from Area 1 pits and linears, slight concentrations were also recovered from pit F4234 and within the midden of Area 2.

BURNT FLINT

A small quantity of burnt flint was recovered from the site (19 fragments weighing 260 grammes) and although intrinsically undatable burnt flint is often associated with prehistoric artefacts and taken as an indicator of prehistoric activity. The fragments were dispersed in very small quantities within a number of mainly Iron Age features in Area 1 (only three fragments were recovered from the late Romano-British midden).

THE HUMAN SKELETAL ASSEMBLAGE by Kate Bravne

INTRODUCTION

Three skeletons of Romano-British date were recovered. In addition, three stray human bone fragments were recovered, comprising an adult humerus fragment from pit F4225, and a tibia and neonatal tibia from the midden. No skeleton was complete from the graves and all three individuals were poorly preserved. Those bones which did survive were in fragmentary condition, invariably exhibiting almost total exfoliation of the periosteum In each individual the long bones were the best preserved, with the axial skeleton (ribs, vertebrae and pelvis) almost entirely absent. Additionally, only the shafts of the long bones survived, again because the epiphyses consist largely of trabecular bone. In Inhumations 1 and 2 the skull vaults survived, although in fragmentary condition, but the delicate facial bones were not preserved. In Inhumation 3

the bones of the skull completely disintegrated. In all three inhumations the bones of the hands and feet were not preserved, except for two metacarpal shafts in Inhumation 2. The teeth were the best preserved feature of all three individuals, although most of the teeth were only present as enamel crowns, as the roots had not been preserved. This general poor state of preservation has implications for the degree of osteological and palaeopathological information which could be gleaned from the assemblage.

OSTEOLOGY

Each skeleton was laid out individually with the bones in anatomical position and each individual was assessed for sex, age, stature, pathology and morphological anomalies.

Owing to the poor state of preservation of these inhumations, insufficient sexually dimorphic features were preserved to assign a firm sex to any individual. A proportion of the mandible of Inhumation 1 was preserved, displaying a typically male-shaped mental protuberance (the 'square jaw' so beloved by writers of romantic fiction). Although inadequate as a means of assigning a definite sex to this individual, as the only sexually dimorphic feature present on any of the inhumations, this individual has been assigned as a tentative male. It was not possible to sex inhumations 2 and 3, and they are therefore recorded as indeterminate.

Inhumation 1 was possibly a middle adult, aged between 35 and 45. This individual was the youngest of the three. Inhumation 2 was possibly a mature adult, aged between 45-60 and Inhumation 3 was possibly also a mature adult, aged between 45-60.

Because there were no intact long bones on these three skeletons, no estimation of stature was possible.

As the individuals were so poorly preserved ne morphological anomalies were observed.

PATHOLOGY

Only dental pathologies could be identified as the state of preservation of these inhumations was so poor. None of these three individuals presented with caries, which suggests a diet low in sugars. Periodontal disease is a term used to describe inflammatory changes in the alveolar bone of the gums, caused by accumulation of mineralised bacterial plaque ('calculus') on the teeth when oral hygiene is inadequate. Eventually, the alveolar bone begins to recede and the teeth loosen in their sockets and ultimately are lost. Inhumation 1 presented with periodontal disease. The absence of caries and periodontal disease in Inhumations 2 and 3 may indicate a high level of dental hygiene.

Enamel hypoplasia is a defect in enamel matrix formation caused by severe nutritional deficiency or disease during the first few years of life, when the permanent teeth are forming. If enamel hypoplasia is present in the deciduous teeth this indicates that the stress occurred when the child was in utero, owing, for example, to maternal rubella infection or congenital syphilis. It appears as grooving or pitting on the crowns of the teeth. Inhumation 1 presented with a generalised distribution of enamel hypoplasia.

ECONOMY AND ENVIRONMENT

THE ANIMAL BONE by Claire Ingrem

INTRODUCTION

Sixty-one animal bone fragments were recovered from Phase 1, Late Iron Age to early Romano-British deposits and 3,230 fragments from Phase 2, late Romano-British contexts. Only six Phase 1 pieces are identifiable to species, all sheep/goat.

Of the Phase 2 animal bone (Table 10), the majority (70%) came from the extensive midden with smaller amounts from pits, ditches, buried soils and other features. The identifiable assemblage (Table 11) is dominated by the remains of cattle (83%), with horse and sheep/goat present in almost equal proportions (8% and 7%), pig and dog are both present but they constitute only a small proportion of the assemblage (2% in total). Similarly, large mammal fragments are decidedly more numerous than medium mammal fragments. The only evidence for wild species is a piece of worked red deer (Cervus elaphus) antler and the first and second mandibular molars belonging to fox (Vulpes vulpes). Bird was represented by a single unidentifiable fragment.

The calculation of minimum number of individuals (hereafter MNI) suggests that cattle

Midden	Pit	Ditch	Buried soil	Other	Total	%
786	148	59	49	30	1072	33
4	4				8	<1
54	11	8	I	4	78	2
13	4	2	2		21	1
79	11	6	1	3	100	3
2	3	1			6	<1
	1				1	<1
2					2	<1
879	121	102	51	23	1176	36
11	14	1	1		27	1
1					1	<1
426	55	129	110	18	738	23
2257	372	308	215	78	3230	
70	11	10	7	2		
	786 4 54 13 79 2 879 11 1 426 2257	$\begin{array}{ccccc} 786 & 148 \\ 4 & 4 \\ 54 & 11 \\ 13 & 4 \\ 79 & 11 \\ 2 & 3 \\ & 1 \\ 2 \\ 879 & 121 \\ 11 & 14 \\ 1 \\ 426 & 55 \\ 2257 & 372 \end{array}$	$\begin{array}{ccccccccc} 786 & 148 & 59 \\ 4 & 4 & & \\ 54 & 11 & 8 \\ 13 & 4 & 2 \\ 79 & 11 & 6 \\ 2 & 3 & 1 \\ & & 1 \\ 2 & & \\ 879 & 121 & 102 \\ 11 & 14 & 1 \\ 1 \\ 426 & 55 & 129 \\ 2257 & 372 & 308 \\ \end{array}$	786 148 59 49 4 4 - - 54 11 8 1 13 4 2 2 79 11 6 1 2 3 1 - 879 121 102 51 11 14 1 1 426 55 129 110 2257 372 308 215	786 148 59 49 30 4 4 - 54 11 8 1 4 54 11 8 1 4 2 7 7 11 6 1 3 79 11 6 1 3 3 1	786 148 59 49 30 1072 4 4 8 1 8 1 8 54 11 8 1 4 78 21 79 11 6 1 3 100 6 2 3 1 1 100 2 2 100 2 3 1 2 2 2 2 2 100 6 1 100 2 1176 1 27 1 1 27 1<

Table 10: Species representation according to feature type(NISP)- Later Romano-British

(58%) and horse (6%) were less abundant than suggested by number if identified specimens (hereafter NISP) with sheep/goat (22%) and pig (6%) accounting for a larger proportion of the assemblage (Table 11).

The proportion of the assemblage which is identifiable (40%) is comparable with handrecovered material from other sites of this period; the variations which can be seen to exist according to feature type will be discussed below.

ANATOMICAL REPRESENTATION

Anatomical representation according to NISP is given in Table 11. Cattle are represented by elements from all parts of the body, and the presence of vertebrae and ribs is suggested by those categorised as large mammal. However, the elements are not equally represented and the assemblage appears to be dominated by mandibles, loose teeth and numerous fragments from the skull. Of the remainder, major limb bones have the best representation with smaller and/or more fragile elements (carpals, tarsals, phalanges, atlas, axis, specified skull bones) becoming progressively less well represented.

The size of the sheep/goat and pig samples is too small to provide conclusive evidence concerning body part representation, however mandibles and loose teeth are again the most numerous elements and apart from major limb bones, other elements are scarce. Vertebrae and ribs categorised as medium mammal are also scarce although a few nondescript fragments of rib are present. The majority of the horse remains are loose teeth although mandibles and most of the major limb bones are also represented. Dog is represented solely by the skull and mandible.

EVIDENCE FOR AGE AND SEX

According to tooth eruption and wear (n=50), the majority of cattle were aged between 2 and 6 years at the time of death, within this group the highest peak occurs between 2 and 3 years (50% of total) of age. Few cattle appear to have died when young or very old. Epiphyseal fusion data confirms that the majority of cattle were over 2 years old at the time of death but suggests that the highest rate of death occurred in animals over 3 years (Table 12).

The tooth eruption and wear data for sheep/ goat although based on a small sample (n=21)suggest a fairly constant rate of mortality up until the age of 6 years. Evidence from epiphyseal fusion is scarce.

The crown height of two horse maxillary toothrows indicate ages between $5\frac{1}{2} - 9\frac{1}{2}$ and $6\frac{1}{2} - 8\frac{1}{2}$ years; in addition an isolated mandibular third molar is from an animal aged $7\frac{3}{4} - 9\frac{1}{4}$ years.

Ageing data for pig are scarce. Two mandibular pig canine teeth belong to a male and a female, in addition a mandibular canine alveolar, which had lost its tooth post mortem, is from a male.

FEATURE TYPE

Cattle are the most numerous species in all feature types. Their proportion of the total assemblage displays some variation with cattle bones at their least abundant in the ditches (19%) and buried soil (23%), however this reflects the higher proportion of unidentifiable fragments rather than an increase in the proportions of other species (Table 1). The highest proportion of cattle fragments was found in pits (40%, principally F4225), followed by the miscellaneous features (38%) and the midden (35%). Sheep/goat, pig and horse were found in similar proportion in all feature types although again, the buried soils produced the lowest proportions. Dog bones were recovered from the midden, pits and ditch. The single piece of red deer antler came from a pit and the two fox teeth from the midden.

Table 11: Anatomical representation (NISP) & MNI- Later Romano-British

	Cattle	Sheep	Sheep/ goat	Pig	Horse	Dog	Red deer	Fox	Lge. mammal	Med. mammal	Total
Horn core	7.00										7.00
Antler							1.00				1.00
Zygomatic	14.00				3.00						17.00
Occipital Condyle	13.00				2.00	1.00					16.00
Frontal	7.00		1.00								8.00
Nasal	3.00										3.00
Maxilla	11.00			1.00	3.00	2.00					17.00
Upper tooth	266.00		13.00	1.00	35.00						315.00
Premaxilla	3.00				1.00						4.00
Mandible	141.00	5.00	10.00	5.00	3.00	2.00			65.00	3.00	234.00
Lower Tooth	142.00		21.00	7.00	14.00			2.00	1.00		187.00
Atlas	7.00										7.00
Axis	2.00										2.00
Scapula	46.00			3.00	3.00				4.00		56.00
Humerus	35.00	1.00	2.00	1.00	2.00				35.00	3.00	79.00
Radius	34.00		5.00		9.00				5.00		53.00
Ulna	12.00								1.00		13.00
Radius & Ulna	2.00										2.00
Pelvis	39.00		2.00		6.00				2.00		49.00
Femur	19.00		3.00	1.00	2.00				10.00		35.00
Tibia	26.00	1.00	8.00		6.00				21.00		62.00
Astragalus	16.00										16.00
Calcaneus	16.00			1.00							17.00
Navicular-cuboid	5.00				1.00						6.00
Tarsal .	2.00										2.00
Magnum	1.00										1.00
Carpal	2.00				1.00						3.00
Metacarpal	24.00	1.00	5.00		2.00						32.00
Metatarsal	27.00		8.00								35.00
Metapodial	11.00				1.00						12.00
1st phalanx	17.00			1.00	3.00						21.00
2nd phalanx	5.00										5.00
3rd phalanx	1.00										1.00
Cervical vert.									6.00		6.00
Caudal vert.									1.00		1.00
Thoracic vert.									5.00		5.00
Lumbar vert.									3.00	1.00	4.00
Sacrum									1.00		1.00
Rib									7.00	2.00	9.00
Skull frag.	96.00					1.00			99.00		196.00
Tooth frag.	12.00				3.00				4.00		19.00
Long Bone Frag.									144.00	7.00	151.00
Rib Frag.									114.00	10.00	124.00
Vert.frag.									49.00	1.00	50.00
Total	1070.00	8.00	78.00	21.00	100.00	6.00	1.00	2.00	1178.00	27.00	2491.00
% identifiable	83.00	1.00	6.00	2.00	8.00	<1	<1	<1			
MNI	21.00	8.00		2.00	2.00	1.00	1.00	1.00			36.00
%	58.00	22.00		6.00	6.00	3.00	3.00	3.00			100.00
Element used in M	NI	mandible	mandib	le	mandibl	e hum,rad,	pel,tib	mandi	ble		

Table 12: Waynide Form companyed with Durin (1067)

Table 12: Cat	le: estimated a	ige accor	ding to	epiphyseal	Table 13: Way	side Farm compare	d with Brain (1967)
fusion						Wayside Farm	Brain (1967)
		Fused	Unfus	ed %	Skull	33	0
unfused					Humerus,p	12	2
7-10 months	Scapula	11	1		3rd phlanx	1	3
	Pelvis	4			2nd phalanx	3	14
Subtotal<1yr		15	1	6	1st phalanx	9	3
12-15 months	Radius,p	26			Femur,d	14	8
15-18 months	Phalanx II	5			Tibia,p	24	11
15-20 months	Humerus,d	20			Calcaneus	38	12
20-24 months	Phalanx I	17			Astragalus	38	13
Subtotal<2yrs		68		0	Femur,p	21	15
24-30 months	Tibia,d	11	4		Metatarsal,d	43	16
	Metacarpal	9			Radius,d	24	18
	Metatarsal	11	1		Metacarpal,d	29	19
Subtotal<3yrs		31	5	14	Atlas	33	19
36 months	Calcaneus	2	1		Axis	10	23
36-42 months	Femur,p	1	7		Metacarpal,p	43	27
42-48 months	Humerus,p		1		Pelvis	36	28
	Radius,d	3	6		Scapula	43	28
	Ulna,p	3			Metatarsal,p	48	34
	Femur,d	1	2		Radius,p	64	52
	Tibia,p				Tibia,d	29	58
					Humerus,d	48	68
Subtotal<4yrs		10	17	63	Mandible	86	93

Table 12: Cattle: estimated age according to epiphyseal

The anatomical elements have been grouped into body parts to facilitate comparison between the four feature types. Due to sample size this is only warranted for the cattle assemblage, although mention is made of sheep/goat. Cattle loose teeth dominate most of the major features, especially the buried soil and ditch deposits, but are the least numerous element in pits. Cranial bones are also relatively abundant in all feature types being more or equally numerous than post-cranial elements. Major limb bones are not dominant in any of the feature types and only reach an equal abundance with crania in pits and ditches. Elements belonging to the feet are the least abundant body part in midden and ditch deposits but in pits they slightly outnumber loose teeth and in buried soils they are more numerous than major limb bones.

Only ovicaprid remains from the midden comprise an assemblage worthy of discussion in terms of body part representation. Loose teeth completely dominate the sample with cranial and post-cranial (major limb and foot bones) elements fairly equally represented.

TAPHONOMY

The abundance of loose teeth and mandibles, which are the most durable elements in the skeleton. suggests the assemblage has been severely affected by differential preservation. In order to test this, the percentage survival of cattle elements has been calculated and is compared with the model

proposed by Brain (1967), to reflect density related survival (Table 13). It is clear that the pattern at Wayside Farm is generally inconsistent with the model suggesting that cultural factors are largely responsible for the anatomical patterning. Elements which are noticeably under-represented are the distal humerus, distal tibia, axis, 2nd phalanx and 3rd phalanx. The remaining elements are to some extent over-represented but the relative abundance of fragile skull bones, tarsals (astragalus and calcaneus) and metapodials is particularly noticeable.

The overall proportion of gnawing and butchery according to species is shown in Table 14 and indicates that sheep/goat display more evidence (11%) for gnawing than the larger animals. A considerable proportion (14%) of the cattle assemblage displays evidence of butchery, in the form of cut or chop marks. Butchery marks are also visible on a number (8%) of horse bones, mostly chop marks. During recording, a constant pattern of chop marks was noted, in particular, many of the cattle mandibles had been sliced along their ventral surface, epiphyses had often been chopped sagitally, resulting in removal of the lateral or medial portion, and shafts had been chopped through. Multiple cut and chop marks were often clearly visible on individual bones and the fragmented nature of many of the long bones suggests they were deliberately smashed. Very few bones had been burnt; only one could be identified to species and this belongs to sheep/goat.

The incidence of taphonomic modification according to feature type has been investigated for cattle (Table 15). The highest incidence of gnawing (9%) was seen on bones recovered from pits whereas none was observed on those from buried soil. Ditch deposits contained the highest proportion of cattle bones with cut marks, followed by those from buried soils (6%). In contrast, the highest incidence of chopped bone was recovered from pit and midden deposits. Bones displaying both cut and chop marks were most numerous in material from pits.

METRICAL ANALYSIS

Measurements are given in archive. Where possible these have been compared with those held on the ABMAP (Animal Bone Metrical Archive Project) at CHEE (Centre for Human Ecology and Environment). With the exception of one metatarsal, all of the cattle measurements fall within the range obtained from contemporary sites. This anomalous measurement is about 10mm smaller than the lowest greatest length (GL) measurement held on ABMAP and indicates that one animal was smaller than those found at many other Romano-British sites. Two measurements (Bd and BT) taken on a sheep humeri were also smaller than the ABMAP measurements.

The withers height of horse was calculated according to the formulae of Kiesewalter (1888 in

Table 14: Incidence of tanhonomy (NISP & %)

von den Driesch and Boessnick 1974) for the lateral length of the radius and metacarpal as 1.3 m and 1.4m respectively.

The few dog remains were compared with comparative skeletons in order to gain an indication of size, two partial skulls, a mandible and a matching pair of maxillae are similar in size to a Jack Russell Terrier. In addition, one mandible is about the length of a greyhound but more robust.

DISCUSSION

Cattle clearly dominate the assemblage and appear to have been kept in far greater numbers than the other domestic species. However, it has been shown that the bones of large mammals are more prone to fragmentation than those of smaller mammals, therefore sheep/goat and pig may have made up a greater proportion of the livestock than is suggested by NISP alone. The bones of smaller mammals are also more likely to be destroyed by density mediated attrition and canid gnawing than are larger more robust bones, hence it is possible, as the calculation of MNI suggests, that sheep/goat and pig were not quite such a minor component of the economy.

Mandibles and loose teeth dominate the remains of all species suggesting that the assemblage consists of primary butchery waste. However teeth are numerous in the skeleton and being composed of dentine and enamel are more likely to survive in the archaeologically record than bone. Mandibles

dence of ta	aphonomy	(14131° & 70)					
Gnawed		Butchered				Burnt		
	%	Cut	Chop	Cut/chop	%		%	
59	6	60	62	27	14			
10	11	1	1		2	1	1	
1	4	2			2			
2	2	6		2	8			
			1					
11	1	22	27	3	4	4	<1	
		1			4	1	4	
83		92	91	31		22		
	Gnawed 59 10 1 2 11	Gnawed % 59 6 10 11 1 4 2 2 11 1	Gnawed Butchered Cut 59 6 60 10 11 1 1 4 2 2 2 6 11 1 22 11 1 22 11 1 22 1 1 1	% Cut Chop 59 6 60 62 10 11 1 1 1 4 2 2 2 2 6 1 11 1 2 1 11 1 22 27 1 1 1 1	Gnawed Butchered Cut Chop Cut/chop 59 6 60 62 27 10 11 1 1 1 4 2 2 2 2 6 2 11 1 1 11 1 2 11 1 2 11 1 22 11 1 22 11 1 1 1	Gnawed Butchered Cut Chop Cut/chop % 59 6 60 62 27 14 10 11 1 1 2 1 4 2 2 2 2 2 6 2 8 11 1 22 27 3 4 11 1 22 27 3 4	Gnawed Butchered Cut Chop Cut/chop $\%$ Burnt 59 6 60 62 27 14 10 11 1 1 2 1 1 4 2 2 2 2 2 6 2 8 11 1 22 27 3 4 4 1 1 - 2 8 1	

Table 15: Cattle: incidence of taphonomy according to feature type (NISP and %)

	Gnawed	b	Cut	Cut		l	Cut & ch	Cut & chopped		
	n	%	n	%	n	%	n	%		
Midden	41	5	43	5	48	6	15	2		
Pit	14	9	6	4	11	7	9	6		
Ditch	4	6	7	10	1	1	2	3		
Buried soil			3	6	1	2				
Total	59	6	59	6	61	6	26	2		

are the densest most robust bones and are therefore also most likely to survive the effects of physical and chemical decay. However, the percentage survival of certain elements is somewhat anomalous for an assemblage biased by density related preservation alone and suggests that cultural behaviour has played a major role in creating the assemblage.

Elements from all parts of the cattle skeleton are present suggesting that some whole carcasses were originally present at the site. The overrepresentation of fragile cranial elements, tarsals and metapodials (foot bones), elements generally associated with primary butchery suggests that this activity was taking place at the site. The relative scarcity of the axis and some major limb bones is more difficult to explain, assuming that whole carcasses were originally present these must have been either deposited elsewhere, or removed from the site, perhaps as joints of meat. Alternatively, the high degree of fragmentation which rendered many limb bones unidentifiable is likely to have produced a bias and suggests that limb bones may have originally been more numerous.

Few animals were culled when young or very old and although some animals would have been used for traction and milk production, the age profile suggests that the production of beef was of primary importance. If a small settlement at Wayside Farm was producing surplus beef, it is quite possible that some joints of meat were traded and again, this would account for both the abundance of primary butchery waste and the underrepresentation of some limb bones. In contrast, the ovicaprids appear to have been culled at a fairly steady rate up until the age of at least 6 years and were probably kept to provide a combination of meat, wool, milk and manure. The recovery of neonatal lamb/kid and pig bones suggests that some breeding took place on or close to the settlement. There is no evidence for immature horse.

Previous studies of Iron Age and Romano-British assemblages (Maltby 1985) suggest that primary butchery waste, especially that of large mammals, is more often found in ditches on the periphery of settlements than in pits close to areas of habitation. It has been suggested that this reflects size related butchery and cooking techniques, whereby meat is removed from the bone of large animals prior to cooking whilst the meat of smaller mammals such as sheep/goat is cooked on the bone. Sheep/goat and pig bones are therefore more likely to be deposited in pits close to habitation areas. The high relative frequency of sheep/goat bones generally found in pits may also reflect the protection given to bone by the creation of a microenvironment which aids the survival of smaller and less dense elements. This appears to be the case at Wayside Farm where the low proportion of loose teeth found in pit deposits indicates better preservation than other features. The high proportion and predominance of cattle bones in the pits at Wayside Farm is therefore likely to be a genuine reflection of their abundance, rather than just differential preservation.

The practice of disposing of cooking waste in pits discussed above is suggested by the relatively high proportions of cattle and sheep/goat limb bones, however bones from the head are equally numerous. Either pits were being used for the disposal of mixed waste, or animal heads were deliberately being placed in them. Skull bones are abundant in all of which suggests that they either represent the abundance of primary butchery or behaviour of a symbolic nature.

Loose cattle teeth and bones from the head dominate the midden deposit with a smaller proportion of major limb and foot bones, suggesting it is composed predominantly of primary butchery waste with perhaps some consumption waste represented by the limb bones. In addition, a considerable number of large mammal ribs and vertebrae, also representative of primary butchery waste, are present. The high proportion of unidentifiable material in the ditches and buried soils implies that these deposits have been subjected to a greater degree of fragmentation and surface weathering. The predominance of loose cattle teeth in the buried soil is also likely to reflect poor preservation. The relative proportion of large mammal ribs and vertebrae, and cattle head and foot bones, suggest that primary butchery waste was also deposited in the ditch; it is quite possible that the major limb bones had their meat removed prior to cooking and therefore also represent primary butchery waste.

The presence of dogs on the site is attested more by evidence of gnawing than by their skeletal remains. Bones disposed of in ditches or left lying around on the surface would have been more easily accessible to dogs than those buried in pits. However, the material from pits display the highest incidence of gnawed bone which implies there was a gap, between butchery or cooking and the disposal of bone waste in pits, during which time scavengers had access to it. This suggests that pits may have been used to redeposit waste collected from elsewhere on the site and would explain the mixture of primary butchery and cooking/consumption waste. Sheep/goat display almost twice the proportion of evidence for gnawing than cattle and suggests that ovicaprid bones were either more accessible to, or preferred by, dogs than cattle bones. It is impossible to estimate the number of bones that have been completely destroyed by dogs but there is little doubt that those belonging to sheep/ goat and pig, could have been totally consumed in a relatively short space of time compared with the bones of cattle.

It is unsurprising that the bones of the larger mammals possess a higher incidence of butchery as this is likely to be a function of size-related butchery techniques. The fairly high incidence of chop marks and their location close to joints indicates that dismemberment and jointing was often achieved by chopping straight through the limbs rather than by cutting through the tendons and muscles which hold the joints together. The high proportion of cattle bones in ditch fills with cuts inflicted during dismemberment or filleting indicates that bones which had had their meat removed may have been disposed of in the ditch. In contrast, pits contained the highest proportion of chopped bone, again suggesting that at least some primary butchery waste was deposited in pits or alternatively that some meat was cooked on the bone.

Comparison with contemporaneous sites

Animal bone assemblages have previously been recovered from numerous Romano-British sites in the south of England including several in Wiltshire. The relative proportions of cattle and sheep are often used as an indication of the influence of Romanisation and according to King (1978, 211; 1991, 15-20), there is an increase in the numbers of cattle and pigs and a decrease in the numbers of sheep kept throughout the Romano-British period. At Groundwell Farm, Blunsdon St. Andrew (Coy, n.d.), although the Romano-British assemblage is small (n=109), sheep are far more numerous than cattle and pig abundant throughout the Iron Age and Romano-British occupation. A significant assemblage (n=3,771) was recovered from Late Romano-British deposits at Butterfield Down, Amesbury (Egerton 1996); again sheep are the most numerous species although cattle are also abundant and pig relatively scarce. Sheep/goat were also more numerous than cattle and pig scarce in the small

assemblage (n=116 excluding animal burials) from Maddington Farm, Shrewton (Hamilton-Dyer 1996). Interestingly, at Figheldean in the Avon Valley (Egerton *et al* 1993), sheep/goat are more numerous than cattle in the Early Romano-British phase but cattle become the most numerous species in the Late Romano-British phase and sheep/goat a minor component (<3%). The dominance of cattle at Wayside Farm appears to indicate that this community was more influenced by Romanisation than other settlements in the region, indeed the proportion of cattle compares with that found on many military sites (>75%) (King 1978, 225).

The majority of cattle from Wayside Farm were slaughtered between the ages of two and six years, according to Maltby (1981), 'the heaviest concentrations of adult cattle have so far appeared only on urban and military sites' and are believed to reflect the organised marketing of cattle needed to supply such centres with meat. At Portchester Castle, Hampshire (Grant 1975) most of the cattle were aged over 5 years at the time of slaughter. At Vindolanda (Hodgson 1977, 12), the majority of cattle mandibles had the third molar in wear (according to Legge (1982) wear commences at around 26 months), and at Exeter (Maltby 1979; 155-156) the majority belonged to animals over 26 months. In contrast, the higher proportion of immature animals found at rural and other settlements is believed to reflect their self-sufficiency and the availability of animals surplus to breeding, traction and redistribution requirements (Maltby 1981). Ageing data from the cattle at Wayside Farm suggest that cattle husbandry was geared toward the production of meat, possibly to supply an urban centre although adult cattle would no doubt have provided milk and traction prior to their slaughter.

A distinctive pattern of refuse disposal is also noted by King (1978:225) at certain military sites, for example at Little Chester pits were filled with extremely fragmented cattle longbones. It has been suggested by Van Mensch (in King 1978) that these result from bones being smashed and boiled to make broth and extract grease or marrow. The fragmentary nature of the Wayside Farm material suggests that many of the long bones may have been treated in a similar way.

Horse and dog generally constitute a minor component of Romano-British assemblages. By modern day standards the equid remains from Wayside Farm belong to small ponies, this type of horse was common in the Iron Age and Romano-British period (Luff 1982). The majority of horses recovered from Romano-British contexts are older animals, probably kept as pack animals or for riding. At Dorchester By-pass (Bullock n.d.) and Winklebury (Jones 1977), tooth eruption and epiphyseal fusion data from individual elements revealed that most of the horses represented were also adult. Butchery marks have been recorded on horse bones from contemporary sites including Farmoor (Wilson 1979) and Dorchester By-pass (Bullock n.d.) suggesting that horses were utilised for their meat and skins.

A small proportion of wild species is also usual for sites of this period. King (1978: 216) notes that where cervid bones are found, they most often belong to red deer and explains this as being due to their preferred size.

CONCLUSION

The Wayside Farm site probably lies on the periphery of a settlement that appears to have been engaged in the keeping of cattle specifically for the production of beef. Other animals seem to have played a relatively minor role in the economy. The size of the midden and predominance of primary butchery waste in all feature types suggests that cattle butchery was an important function of the site; this is supported by the pattern of butchery and bone fragmentation suggesting intensive processing of the carcasses. Anomalies in anatomical representation, which cannot be explained solely by density mediated taphonomy, also suggest that some surplus joints of beef may have been exported from the site and it is likely that if surplus meat was produced then both carcasses and filleted joints may also have been exported. Evidence of the species exploited, their mortality profiles and butchery all point toward a settlement strongly influenced by Romanisation.

THE CHARRED AND MINERALISED PLANT REMAINS

by Wendy J. Carruthers

INTRODUCTION AND METHODS

A total of sixteen samples was submitted for analysis. These comprised six samples from late Iron Age/early Roman periods (Phase 1) storage pits and a linear feature in Area 1. Late Romano-British (Phase 2) samples analysed for this report include one from a grave in Area 1, two from possible corndrying ovens, three from the midden, two post-hole fills and a pit fill, all in Area 2. Three of these (the grave fill and the two post-hole fills) produced no archaeobotanical remains.

The samples were processed by AC archaeology staff using standard methods of flotation. A minimum mesh of 500 microns was used to retain the flots and a 1mm mesh was used for the residues. The flots were fully sorted under a binocular microscope by the author, and all of the residues were scanned. Where mineralised plant remains were observed in the flots, the residues were fully sorted. In addition, all of the midden residues were fully sorted. Microscopic sorting of the residues was considered necessary in view of extensive mineralisation found on the nearby Late Bronze Age site at Potterne (Carruthers 2000). As at Wayside Farm, Potterne was also located on Upper Greensand and consisted of a vast deposit of midden-type material containing high concentrations of mineralised plant remains.

RESULTS

Table 16 lists the charred and mineralised plant remains recovered from the samples. Nomenclature and the habitat information follow Stace (1991).

DISCUSSION

The Mineralised Plant Remains

Calcium phosphate-replaced plant remains were present in low concentrations in three of the sixteen samples examined for this report. This type of preservation occurs in deposits that are rich in nutrients and have a high moisture content (Green 1979; Carruthers 2000). It is likely that the parent soil type is also important, although this factor needs further investigation. Despite the widespread occurrence of mineralised plant remains in the midden at Potterne (Carruthers ibid), the Phase 2 Romano-British midden at Wayside Farm did not produce many mineralised seeds. Bone, however, was frequent and well preserved in two of the samples (11 and 12). It is also notable that a fragment of probable cereal grain was one of the taxa recovered from the midden, as well as a smallseeded arable weed, corn spurrey (Spergula arvensis). These remains probably originated in faecal waste or some other type of domestic waste.

Table 16 : The Plant Remains

Key: [] = mineralised remains; no brackets = charred; f = fragment; + = <1

Phases: Phase 1 = Middle Iron Age to Early Roman; Phase 2 = Later Romano-British;

Feature types: L = linear feature; M = midden; O = oven; P = pit

Habitat key: A = arable; C = cultivated; D = disturbed/waste; E = heath; G = grassland; H = hedgerow; M = marsh; P = ponds/ ditches; S = scrub; W = woods; a = acidic; c = calcareous; d = damp; n = nutrient-rich; o = open

Phase and Feature type Context	1 P 3039	1 L 3068	1 P 3021	1 P 3018	1 P 3023	1 P 3005	1 P 3007	2 O 4247	2 O 4221	2 M 2 P 4016, 4235 4038, 4066
Feature	3037	3083	3020	3016	3022	3004	3006	4214	4007	mid- 4234 den 11, 24 12,13
Sample no. TAXA	1	2	17	18	19	20	21	8	10	
Cereals Triticum dicoccum/spelta (emmer/spelt grain) Triticum cf. aestivocompactum (bread-type wheat grain) Triticum sp.	2	3	6	86	12	22	27	1		2
(indeterminate wheat grain) <i>Hordeum vulgare</i> (hulled barley grain) cf. <i>Hordeum</i> sp. (cf. barley grain)	2		4	15	5	19	20			
cf. Avena sp. (cf. oat grain) Indeterminate grains Chaff	16	4	31	116	1	94	52			2[1f]
Triticum dicoccum (emmer glume base) T. cf. dicoccum (cf. emmer glume bases) T. spelta (spelt glume base) T. dicoccum/spelta (emmer/spelt	2 17 34		5 14	2 33 137	5 36 146	21 64	31 49			1
glume bases) T. dicoccum/spelta (emmer/spelt	6		1	2	15	12	22			Å
spikelet forks) T. dicoccum/spelta (emmer/spelt rachis frag.)			1		2	1	1			
Hordeum sp. (barley rachis) Cereal-type culm nodes Cereal-type culm base Weeds	2 1 2			1	4 1	5	2			
Arrhenatherum elatius var. bulbosum (onion couch) AG		1		4						
Brassica/Sinapis sp. (mustard, charlock etc.) CD			[8]				[2]			
Bromus sect. Bromus (chess) CG Chenopodium album L. (fat hen) CDn Chenopodiaceae CD Cirsium/Carduus sp. (thistle) DG	23		1	4 3	44 3	14 3	36 [1]			
Corylus avellana (hazelnut shell frag.) HSW			11	1			1		1	1
Daucus carota L. (carrot) GDc Eleocharis subg. Palustres (spike-rush) PMd						1	1			
Fallopia convolvulus (L.)A.Love (black bindweed) AD Galeopsis tetrahit L. (common hemp-nettle) ADd						1				
Galium aparine L. (cleavers) DH Galium cruciata (L.)Scop. (crosswort) DGHc Galium sp. (cleavers frag.) DH	1	1	4 1	4		1 1	5		1	

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Phase and Feature type Context	1 P 3039	1 L 3068	1 P 3021	1 P 3018	1 P 3023	1 P 3005	1 P 3007	2 O 4247	2 O 4221	2 M 2 P 4016, 4235 4038, 4066
Feature	3037	3083	3020	3016	3022	3004	3006	4214	4007	mid- 4234 den
Sample no. TAXA	1	2	17	18	19	20	21	8	10	11, 24 12,13
Medicago sp. (medick) DGH Montia fontana ssp. minor (blinks) Gd Persicaria maculosa Gray (redshank) CDo Plantago lanceolata L. (ribwort	5		1	1 1	2	1 . 1	2			1
plantain) Go Poaceae (indeterminate grass caryopsis) CDG <i>Polygonum aviculare</i> L. (knotgrass)			2	1	9	1				1
CDo Ranunculus acris/bulbosus/repens (buttercup) CDG Rumex acetosella L. (sheep's sorrel) CEGa				1						
Rumex sp. (dock) CDG Sambucus nigra L. (elder) DHSWn Sherardia arvensis L. (field madder) AD	3		[1]	1	5 1	5	4 I			
Spergula arvensis (corn spurrey) Aa Trifolium/Lotus sp. (clover/trefoil) DG Tripleurospermuminodorum (L.) Schultz-Bip. (Scentless mayweed) CD	2			3 1	3 1					[1]
Vicia cf. cracca L. (cf. tufted vetch) GH Vicia/Lathyrus sp. (small-seeded vetch/ta	re) CDC	1 76		1		3	8	13		
TOTAL Sample volume (litres) Frags per litre Ratio of Grain : Chaff : Weeds	124 1 124 1:4:2	9 1 9	82 [9] 10 8 [1] 5: 3: 1	416 10 42 9:7 : 1	316 10 32 1: 7 : 2	273 10 27 4:3:1	268 [3] 10 27 [+] 2: 2: 1	1 1 1	2 1 2	8[2] 1 30 10 +[+] +

Whole cereal grains are not frequently preserved by mineralisation, so this single record is significant, considering the small quantities of soil examined.

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Three other types of plant remains were recovered from two of the Phase 1 storage pits in Area 1; Brassica/Sinapis sp, Chenopodiaceae embryo and dock (Rumex sp.). The three taxa are all commonly preserved by mineralisation, particularly Brassica/Sinapis sp. embryos. They often occur as sporadic finds in samples dating from the Late Bronze Age onwards. They appear to be fairly commonly found in Iron Age pits on calcareous soils, e.g. Maiden Castle (Jones 1984); Lains Farm (Carruthers 1991); Brighton Hill South, Basingstoke (Carruthers 1995) This could indicate the deposition of faecal waste in storage pits that had fallen out of use, or represent background waste such as animal dung that was being trodden around the site. All of the taxa are common weeds of waste grounds and cultivated

land, particularly nutrient-rich soils. *Brassica/ Sinapis* sp. seeds can also be used as a spice (e.g. mustard) and for their oil.

The Charred Plant Remains

Charred plant remains were scarce in all of the Phase 2 Romano-British samples, including the two oven backfills. A few cereal grains, a single emmer/spelt wheat chaff fragment (glume base), a couple of hazelnut shell fragments and a few weeds seeds were recorded from the 6 samples. This scant evidence confirms the cultivation of emmer/spelt wheat and possibly a bread-type wheat (the grain was poorly preserved) during this later phase of occupation. Romano-British samples are often very rich in charred crop processing waste, therefore, taking into account the fact that the sample sizes and number of samples were fairly small, the cereal-related activities during this phase cannot have been very intensive to have left such a small amount of waste.

Out of the Phase 1-samples, only the Iron Age pits were productive. The six pits that were sampled for plant macrofossil analysis all produced fairly large quantities of charred plant remains, ranging in concentration from 8 fragments per litre to 124 frags per litre (see the bottom of Table 16). The assemblages were broadly similar in character, consisting of emmer/spelt wheat (Triticum dicoccum/spelta) and hulled barley (Hordeum vulgare) grain and chaff, with a similar range of weed seeds to each other. The ratios of grain to chaff and weed seeds did differ to some extent, with two pits being dominated by chaff and weed seeds (F3037 and F3022), but the remaining four pits containing more grain and fewer weed seeds. The two chaff and weed-rich pits are towards the centre of the cluster in close proximity to each other, but it is difficult to detect any other particular similarities between the assemblages. It is likely that all of the pits were being filled with a similar type of material, consisting primarily of burnt crop processing waste.

Based on the proportions of glume bases that were identifiable to species level, spelt wheat (Triticum spelta) appears to have been the predominant cereal represented by the burnt waste, followed by hulled barley with small amounts of emmer (T. dicoccum). As is noted below, these cereals are very typical of Iron Age sites in southern England. In addition, the weed assemblages are also very similar, indicating that crop husbandry practices were remarkably uniform at this time. Chess (Bromus sect. Bromus) was the dominant weed in the Iron Age pits at Wayside Farm, as is the case in many storage pits. Cleavers (Galium aparine), dock (Rumex sp.) and small-seeded weed vetches (Vicia/Lathyrus sp.) were also frequent, and are common in other assemblages from this period. Other weed seeds were recovered less frequently, but include indicators of more calcareous soils (Galium cruciata, Sherardia arvensis) as well as acidic ones (Rumex acetosella, Spergula arvensis). Blinks (Montia fontana ssp. minor) is characteristic of soils that are often waterlogged during the winter.

The presence of several onion couch tubers (Arrhenatherum elatius var. bulbosum; four in pit 3022) and eleven fragments of hazelnut shell (Corylus avellana) in pit F3020 indicates that other types of burnt waste were also present. These remains may represent fuel or tinder used to start a fire, particularly since one of the most likely explanations for the presence of charred crop processing waste in the base of Iron Age storage

pits is that the remains represent fuel used to start a fire in order to sterilise the pit (Monk 1991, 106). Other explanations include the use of burnt waste to seal the base of the pit, or the charred remains of material used to close the top of the pit (*ibid*). Whichever explanation applies, burnt crop processing waste is so characteristic of the primary fills of Iron Age storage pits that deliberate use of this type of material is implied.

COMPARISONS WITH OTHER IRON AGE SITES IN SOUTHERN ENGLAND

The combination of primarily spelt wheat chaff with barley and some emmer chaff has been recorded from Iron Age grain storage pits across southern England. In some cases weed seeds were more frequent than chaff fragments (e.g. Brighton Hill South, Carruthers 1995), but this may be the result of differential preservation. In all cases, burnt crop processing waste was present in the base of the storage pits. These sites include Danebury (Campbell 2000), Lains Farm (Carruthers 1991), Old Down Farm (Green 1981), Easton Lane (Carruthers 1989), Brighton Hill South (Carruthers 1995) and Winnall Down (Monk 1985). The recovery of stored grain from Iron Age pits is much less common, although a mixed deposit of emmer and spelt wheat still in spikelet form was recovered from an Early Iron Age storage pit at Sturminster Marshall (Carruthers, in Valentin forthcoming). Only one pit at Danebury produced evidence of a stored crop, consisting of spelt with some barley (Jones 1984). These two cases suggest the deliberate burning of a stored crop, perhaps due to spoilage, or an accidental fire. Such events are less likely to occur than pits simply falling into disuse. Any stored grain remaining in the pit at the time of abandonment would rot away leaving no trace, but the charred lining would be preserved, particularly if the pit was backfilled within a short space of time. These primary deposits are a valuable source of information about the arable economy in the Iron Age, whether or not they contain evidence of stored crops.

DISCUSSION

This excavation at Wayside Farm has established two main phases for the site; late Iron Age - c. 3rd century BC to 1st century AD and late Romano-British - 4th to 5th century AD.

PHASE 1: IRON AGE TO EARLY ROMAN

The later Iron Age and early Romano-British activity is confined to Area 1 where a cluster of storage-type pits, flanking ditches for an east to west aligned trackway and other features indicative of settlement during this period were identified.

The probable trackway in Area 1 is represented by two east-west aligned flanking drainage ditches. Based on the number of recuts present within the excavated profile and the date of the pottery recovered, it is likely that the trackway was utilised for an extended period. The ceramic evidence suggests that the trackway was originally in use at around the same time as the other Iron Age features on the site, indeed the cluster of storage pits (see below and Figure 3) appear to have been deliberately positioned just to the south of its ditches. The trackway was seemingly finally abandoned during the early Romano-British period.

At Area 1 Brickley Lane (Poore *et al.* 2002) a trackway of similar form and alignment was investigated, with the dating evidence also indicating a similar timespan. The Brickley Lane trackway was also located adjacent to evidence for later Iron Age settlement.

The storage pits at Wayside Farm are unlikely to have comprised the totality of the settlement evidence, and it can be assumed that further activity related to these features must lie close by, probably either to the north or west. Deposits of similar date, type and character were also identified at Area 1 Brickley Lane (Poore et al. this volume), but the distance involved (approximately 800m to the north) might indicate that the sites at Wayside Farm and Brickley Lane are unlikely to be part of the same complex. Nevertheless, useful comparisons on the layout and function at both sites can be made. At Wayside Farm, the cluster of storage pits in the northeast corner of the site suggests a defined functional zone, with different activities taking place in separate areas of the site. This was also the case in Area 1 at Brickley Lane (Poore et al. 2002, Figure 3), where a pit group of similar type and function was located immediately to the west of the main penannular structure. The pits at both sites produced similar types of plant and mineralised remains. Cereals comprised spelt wheat, hulled barley and emmer which are commonly found on

sites of this date throughout southern England. Mineralised remains included the finding of *Brassica/Sinapis* sp from pits on both sites, which can be used as a spice and for their oil (see Carruthers, above). Only small quantities of animal bone were recovered from Iron Age deposits at Wayside Farm, although this does not necessarily suggest that domestic animals played only minor role in the economy, as further evidence associated with this site still awaits discovery. The identifiable pieces at Wayside Farm consist entirely of sheep or goat and although the quantity of bone recovered was far greater at Brickley Lane Area 1, where the assemblage is again dominated by these species.

Other feature types of this phase at Wayside Farm included possible drainage gully (F3091), some small pits of indeterminate function and a number of post holes. With the latter feature type no structural pattern could be defined.

The later Iron Age features, artefacts and environmental evidence from Wayside Farm suggests that the site is on the eastern or southern fringes of a small, almost certainly unenclosed farmstead, with the limited evidence indicating that the site's economy may have been based on mixed farming. This has also been suggested for the Iron Age deposits at Area 1, Brickley Lane, perhaps indicating that the pattern of settlement within the area at this time was for such small-scale units, possibly linked by a network of rural trackways.

PHASE 2 : LATER ROMANO-BRITISH

Romano-British deposits and artefacts formed the bulk of the material recovered from the site. Analysis of this evidence has identified a date for this phase of activity towards the end of the Roman period in Britain – late 4th century into the early 5th century.

Despite the non-identification of a structure of this date on the site, the demonstrably very late Romano-British date for the main period of activity at Wayside Farm indicates that the site fits in to part of a growing pattern in Wiltshire and neighbouring areas of western Britain (Corney pers. comm.) and is therefore of some importance. Recent work indicates that there is clearly a considerable amount of late Roman activity in the region, but the sites have yet to be investigated by formal excavation, or using modern archaeological techniques. Wayside Farm is located only 5km south of the discovery of a hoard of 5th-century bronze coins associated with bullion, bronze vessels and a belt fitting at Bishops Canning (Guest *et al.* 1997) and 11km west of an early 5th-century hoard of gold, silver and bronze coins at Stanchester near Pewsey (Paul Robinson in CBA Wessex News, October 2001, 18).

There appear to be two types of deposits present on the site; first, those which on the basis of the material evidence and by association are or may be of religious or funerary character (e.g. the midden, pit F4225, the burials, the north to south flanking ditches), and secondly; those which may be linked to the above deposits but are more likely to represent evidence for settlement-based activity (the ovens, ditches and the remaining cut features).

Deposits of religious or funerary character

The type and quality of some of the artefacts recovered from these deposits taken as a group are more characteristic of ritual or religious beliefs and could be considered as votive offerings rather than the typical range of material recovered from settlement sites of this date. Specific objects would in particular include the curse tablet (Plate 6) and the garment collar (Figure 14.02). Many of the contributors to this report have highlighted aspects of the finds assemblages which may be atypical of the range or composition of collections from unequivocally domestic sites. In addition to the coins, the high proportion of iron objects to nails and the presence of items such as an iron spoon, stylus and hipposandal indicate a site of some status and possibly specialised (ritual) function. In this context, the high proportion of pottery fine wares and animal bone butchery waste, including skulls, may also be indicators of non-domestic activity. Wayside Farm may lie close to a site or building with a more specialised function such as a temple or a shrine, as it is not unusual for such places to have associated pit or midden deposits. However, although no structure of this date was identified at Wayside Farm, evidence for late Roman buildings can be notoriously elusive despite abundant finds (Mudd et al. 1999, 148). It cannot be discounted, therefore, that a building of this date may once have been present within the excavated area which did not survive in the archaeological record. This, however, is considered unlikely, with a specialised Roman building immediately to the north of Area 2 seeming more probable.

The midden deposit at Wayside Farm appears to have been demarcated by the north to south aligned ditches F4261, F4288 and F4254, the upper

fills of each containing midden soils. The majority of the midden deposit was identified within the excavation area, with just a small area seemingly continuing beyond the northern excavation limit. The midden covered an area of $c.1150m^2$, with an average thickness of 0.15m; therefore in terms of volume $c.170m^3$ of material was present. On the basis of the homogeneous nature of the deposit, the probability that material from the midden was incorporated within the upper fills of ditches F4261, F4288 and F4254 and pit F4225 (see below) and the presence of conjoining pottery from the pit fill and the midden, it is likely that the midden was formed as a result of dumping or spreading over a relatively short space of time; the latest coin from the deposit dates to between AD388-402. This also appears to have been the case at a possible late Romano-British midden site at Colerne Park (Mellor 1954, 337), where the deposit is also described as homogenous.

Late Roman midden deposits are rare but not unknown in Wiltshire and the surrounding regions either as settlement 'rubbish heaps' or as repositories for votives and other material. Evidence for the former type of deposit has been identified recently during excavations at Weaver's Bridge, near Cricklade (Mudd *et al.* 1999), where the quantity and quality of the artefacts recovered was far lower.

Middens as religious deposits are thought to be present and partly excavated at Cold Kitchen Hill, near Maiden Bradley (Goddard 1893, Nan Kivell 1925), and at Colerne Park (Mellor 1954). The midden at Cold Kitchen Hill was located adjacent to a probable Bronze Age burial mound, but significant quantities of Romano-British artefacts were recovered which are comparable in terms of type, quality and date to the Wayside Farm assemblage, although the longevity of that site was far greater. Further afield, there are also cases of Bronze Age burial mounds being used as repositories for votives and other material during the Roman period, for example at the Roman temple on Brean Down, Somerset (ApSimon 1966). The Colerne Park investigation was far more systematic than that at Cold Kitchen Hill and the material recovered was again similar to that from Wayside Farm. As with the current site, no in situ evidence for an associated structure has so far been identified at either Cold Kitchen Hill or Colerne Park.

Pit F4225 was partly filled with midden material and is a likely component of the probable religious site. Pits within and associated with Romano-British temples sites have been found on other sites in Britain (e.g. Uley, Woodward and Leach 1993). The pit at Wayside Farm appears to have been the focus for the more 'specialised' votive offerings, including the deliberately crumpled garment collar (Fig.14.02), the bronze spoon (Figure 13.04), and the curse tablet (Plate 6), although this object was found within the midden immediately overlying the pit. Large quantities of pottery and animal bone (including complete ox skulls), as well as human bone fragments were also recovered.

The midden soils, the fills of pit F4225 and the artefacts recovered may represent evidence for the periodic clearance of offerings, feasts, and so forth that may have taken place within a temenos precinct of a temple and given a specified 'resting place', the deposit itself subsequently regarded as 'special' in character (Corney pers. comm.). The range of everyday artefacts recovered from these deposits, including animal bone, pottery and iron tools, possibly present as votives, is not unusual for religious sites, as similar finds were recovered from both Cold Kitchen Hill and Colerne Park. These objects may have been present as a result of feasting or sacrifice, or at the time had symbolic reference, the meaning of which is now unknown (Robinson 2001). The type of objects present on the site may also relate to a specific deity or particular groups of worshippers (Allason-Jones 2001).

The deposit clearly represents evidence for pagan beliefs and traditions right at the end of the Romano-British period, and testifies to a continuation of ritual practices undertaken in Britain from the later prehistoric period onwards. It is possible that such deposits can be regarded as the Romano-British successors to the structured ritual deposits discussed by Hill (1995).

In Britain the majority of lead tablets have been recovered from temple sites, e.g. Uley (Woodward and Leach 1993) and Bath (Cunliffe 1988), suggesting further that Wayside Farm has religious affiliations. There is an indication from the legible portion of the text (see Tomlin above), that the 'curse' relates to a theft. At both Uley and Bath the majority of curses related to this act.

Despite the above evidence for native British and Roman religious practices, the burials excavated in Area 1 have attributes which have both pagan and Christian associations, and may provide evidence for a Christian influence on the site. All the burials were laid out on east to west alignments, which can either pagan or Christian, although one of which (Inhumation 2, Figure 16.6) contained an iron spoon (see Mills above). Spoons of this date are found with Christian associations, but this iron example is extremely rare, if not unique.

Grave goods which normally have pagan affiliations were present in all three graves. These comprised a coin, hobnails denoting footwear, and pottery vessels. Based on the two miniature pedestal-base beakers found with Inhumations 1 and 2, the burials can be broadly considered to be contemporaneous with the material recovered from the extensive midden deposit, although the coin found within Inhumation 2 dates to between AD335-340. This coin may already have been old when placed in the hand of the individual. Another example of a rarely identified pagan burial custom in Wiltshire custom is decapitation. The head of the individual Inhumation 1 was placed next to the feet. Mills (above) indicates that it cannot be known if this was after death, or the cause of death. However there are a few instances of graves in Wiltshire where it suggested that the head was decapitated following death (Foster 2001), for example at Winterbourne and Manton Down (ibid.). It has been suggested by Philpott (1980, 88) that the purpose of this was as part of a regeneration ritual to ensure well-being of the individual in the afterlife.

The presence of both burials and midden deposits on late Romano-British sites of religious type is not unknown, although the evidence is somewhat limited. Human remains were found at Cold Kitchen Hill (Goddard 1893) with indications that the two graves here were also on east to west alignments.

Evidence for late Romano-British settlement-based activity

Deposits described under this heading do not fit into the normal pattern of 'ritual activity' and based on the present evidence it must be assumed that some other settlement-based activity was taking place on the site at the same time.

The principal evidence for activity of this type comprises the two oven features F4007 and F4214; although stone ovens were present on the temple site at Uley (Woodward and Leach 1993). The function of structure F4007 is unclear. There is little or no evidence from elsewhere on the site, or from the structure itself to suggest an industrial use such as iron smelting; only 2kg of various slag types including clinker were recovered from the entire excavation. However, it is possible that the function of this structure was for malting or the drying of grain, although analysis of the charred and mineralised plant remains (see Carruthers, this report) does not corroborate this. Similarly, the function of oven F4214 is not known.

Other features include ditches which may have acted as field divisions or for drainage and small numbers of pits and post holes with no obvious function or structural pattern. Quantities of artefacts from all this features was low when compared with the midden and its associated deposits. However, on a site such as this is difficult to distinguish between those features and deposits which represent evidence for domestic activity and those which are now known to have religious connotations.

CONCLUSIONS

Throughout the above discussion it has been emphasised that the deposits relating to both phases at Wayside Farm represent only part of a more extensive Iron Age settlement or farmstead and later Romano-British complex. It is clear that that further evidence for both phases either still await discovery or have already been destroyed by recent development in the area. Of particular note is that sporadic finds of Romano-British material have been found during construction work at the Nursteed Road Industrial Estate and as far north as 'The Green'. Residents along Nursteed Road have also reported finds of this date from their gardens. This would suggest that evidence for Romano-British activity would extend over a considerable area, as 'The Green' is located c.800m northwest of Wayside Farm. The character of the late Romano-British site at Wayside Farm has, based on the artefact evidence, mostly been established, but the nature and importance of Romano-British material beyond the site cannot, at this stage be determined. There is still some considerable archaeological potential for the area surrounding Wayside Farm.

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Iron Age Settlement and Roman Activity at Brickley Lane, Devizes, Wiltshire, 1999 by Daniel Poore, Dave Thomason and Adam Brossler¹ with contributions by Kate Atherton, Bethan Charles, Hugo Lamdin-Whymark, Ruth Pelling and Jane Timby

An excavation covering three separate sites on land to the east of modern Devizes found modest evidence of occupation and activity ranging from the Neolithic period to the 13th century. The principal evidence was found on the northern site and included a solitary Neolithic pit containing Peterborough ware, and a middle-late Iron Age farmstead, with some structural evidence and associated pits and small paddocks. Close to the farmstead was a 1st-2nd century AD trackway, which may have had an Iron Age predecessor. Slight evidence of Anglo-Saxon activity was also recovered. Finds from the site included two iron agricultural tools of Iron Age date, and a 1st century AD catapult bolt-head. The environmental samples from the Iron Age features produced a large quantity of mineralised Brassica seeds. The two southern sites located parts of both Roman and medieval field boundary-ditch systems. A concurrent excavation by AC archaeology on Wayside Farm, south-west of Brickley Lane, found further Late Iron Age and Roman remains. This is fully reported elsewhere in this volume.

INTRODUCTION

An archaeological excavation was undertaken by Oxford Archaeological Unit (OAU) on land to the east of Brickley Lane, Devizes, between November 1999 and January 2000. The work was contracted by Broadway Malyan Planning (Town Planning Consultants) on behalf of the building consortium of Bloor Services Ltd., Persimmon Homes Wessex Ltd., and Swan Hill Homes. The excavation was carried out in advance of the building of houses and an access road on the site.

PROJECT BACKGROUND

The development site is located on the eastern outskirts of Devizes on Brickley Lane (SU 0195 6090), and occupies an area of 16ha in total (Figure 1). The geology of the area is mainly Upper Greensand which overlies a calcareous clay turning to chalk bedrock. The overlying deposits consist of grey brown sandy silt colluvium which appears as a slightly browner version of the natural sand below.

The works undertaken concentrated on three of the four areas of potential highlighted by the evaluation carried out by Thames Valley Archaeological Services during the summer of 1999 (TVAS 1999a). Area 1 was situated at the northeastern end of Brickley Lane and occupied a low crest at the base of Jump Hill (Figure 2). The land slopes away to the south and to the west, with marshland to the east, leading to open fields. Area 2 lay further south in a gently undulating arable field, with Area 4 located to the west of Brickley Lane in flat pasture. The TVAS designated Area 3 was considered to be outside the development impact area and was therefore not investigated further.

¹ Oxford Archaeological Unit, Janus House, Osney Mead, Oxford, OX2 0ES

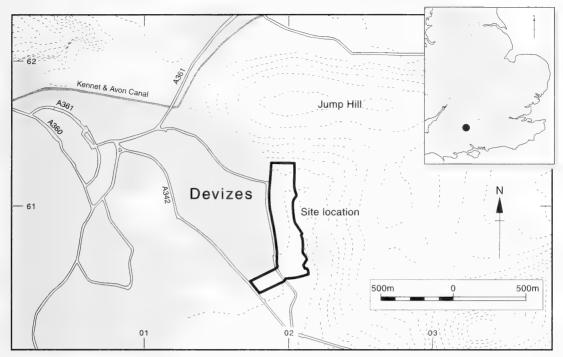


Fig. 1. Site location

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Although Devizes is situated within an area of great archaeological interest, there is little evidence of premedieval activity in the town. The area of Devizes is fairly fertile but the lack of a natural watercourse in the town (VCH x, 225) may be the cause of the limited evidence of prehistoric activity (Haslam 1976, 19). The ploughed-out remains of three probable round barrows, in the form of three ring ditches, have been seen on land to the east of the Brickley Lane site (SMR Nos SU06SW 612, 617 and 635).

There have, however, been various indications of Romano-British settlement in the vicinity, ranging from a hoard of imperial coins contained in a pottery vessel found in 1699 (SMR No. SU06SW 315), and a find of 21 penates (miniature images of household gods and Celtic deities), eight of which survive in the British Museum (Henig 1984, 65-6)), to several burials and artefacts to the south and east of the town (SMR Nos SU06SW 308-314, 316, 321, 322, 328, 329, 330).

Although there is no mention of the town in Domesday, the building of the castle by Bishop Roger of Salisbury in AD 1120 (replacing another thought to have burned down in 1113), signified its growing importance in the medieval period. Roger was one of Queen Matilda's strongest supporters and played a part in the civil-war between Matilda and King Stephen that spread across Wessex (Aston and Lewis 1994, 7). The town was granted a Borough Charter in the mid-12th century, by Empress Matilda when at Devizes Castle in 1141 (Haslam 1976, 19). The town developed throughout the 12th century as a system of planned streets and burgage plots radiating out from the line of the castle bailey defence (Haslam 1976). Further medieval settlement is known at Nursteed Farm, to the southeast of the development area (TVAS 1999a, SMR No. SU06SW 452).

EXCAVATION METHODOLOGY

The areas of investigation were mechanically stripped of topsoil and ploughsoil. Area 1 measured 8500m², Area 2 1200m² and Area 4 800m². The

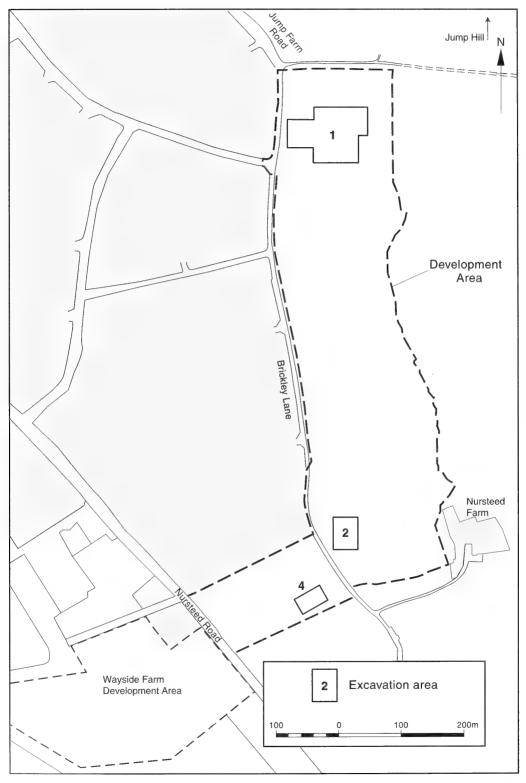


Fig. 2 Plan of excavations

overburden of Areas 1 and 2 measured 0.30m and 0.55m deep respectively; however, that of Area 4 was 0.90m deep, twice that predicted by the evaluation report. This appeared to be the result of colluvial deposition.

It was originally intended that all discrete features would be half-sectioned. However, it became necessary to re-evaluate the intended methodology with the agreement of the County Archaeological Officer, as heavy rain and snow had caused the site to be waterlogged from the outset of fieldwork.

Ultimately 75% of discrete features were examined, with a representative sample of all sizes (in plan) targeted. Ditches and gullies were excavated to a degree sufficient to establish the extent, character and date of each. All features were excavated by hand, and all archaeological recording conformed to standard OAU practice (Wilkinson 1992). A total of 12 samples were taken for environmental analysis from selected pit and ditch fills and buried soil horizons.

RESULTS (Figures 3, 4, 5 and 6)

Area 1

Late Neolithic activity

Pit 19 was the only feature dating from this period. The pit measured 1.30m in diameter and 0.16m in depth, the sides sloping gently to a flat base. It contained two fills, both silty clays. The primary fill (21) was rich in charcoal and contained 17 sherds of Peterborough Ware, probably from a single vessel.

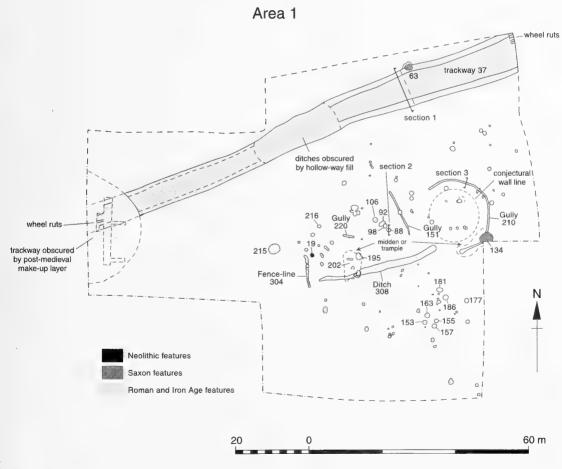


Fig. 3. Excavation area 1

Middle-late Iron Age activity

The linear features

A complex of shallow ditches was identified, interpreted as the footprint of a roundhouse and associated fences and paddocks.

Gully 210 was situated at the east end of this complex. $37m \log_2 0.44m$ wide and 0.22m deep, it curved to form a semi-circle with an internal diameter of c.19m. It had a rounded flat base, sloping sides, and was filled with a friable midgrey brown silt clay (see Figure 6, section 3). Middle-late Iron Age pottery was recovered from the fills.

Gully 151 was aligned north-south and measured c.12m in length, 0.45m in width and was 0.22-0.35m deep, with a 'U'-shaped profile. It was filled by two deposits of friable grey-brown clay silt, but no datable artefacts were recovered.

Gully 220, aligned east-west, was located to the west of 151.3.1m long, 0.5m wide and c.0.1m deep, its sides sloped evenly onto a flat base. Fill 219 was a silty sand containing six sheep mandibles and 22 sherds of late Iron Age pottery.

An inter-cutting line of seven post-holes (304), aligned north-south, appeared to represent a fence line. All the post-holes were circular in plan with an average diameter of 0.8m and a maximum depth of 0.42m. All of those recorded contained a single fill of friable mid grey brown clay silt, and in total contained over 20 sherds of late-Iron Age pottery, along with an iron socketed hooked blade (sf 21, Figure. 8, no.1). Post-hole 15, located *c*.1 m to the north of group 304, also appears to have been part of the fenceline. Finds recovered from this feature included an iron brooch pin (sf 9) and 19 sherds of late-Iron Age pottery.

Ditch 308, orientated north-east to south-west, was 38m in length, 1.7m wide and up to 0.56m deep. The sides sloped gently to a concave base and contained two fills of dark greyish green silty sand with some charcoal and limestone flecks, as well as late-Iron Age pottery.

A deposit of heavily disturbed natural sub-soil (133) up to 0.20 m thick was seen at two locations within the enclosure complex (Figure 3), and was interpreted as trample or possibly midden material. Deposit 133 contained large quantities of late Iron Age pottery.

Further post-holes were also identified in the area, and may represent additional light structural elements. They are marked (Figure 3) but are not described in detail here.

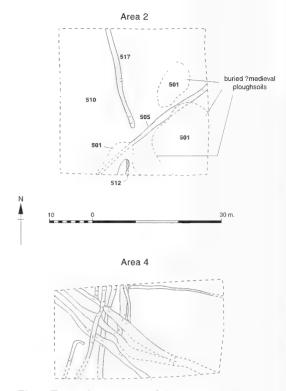


Fig. 4. Excavation areas 2 and 4

The pits

Of the 70 pits identified in Area 1, only three appeared not to date to this period. The majority of the pits were shallow and bowl-shaped and unremarkable. Only those of notable size or shape, or with significant finds assemblages are described below.

Pits 153, 155, 157, 163

The four pits were located to the south of the enclosure and appeared to form a coherent group defining an approximate square. Pits 155 and 157 were circular in plan, measuring 1.1m in diameter and 0.25-0.28m deep, with steep sides and flat bases. The sole fill (156) of pit 155 contained three sherds of late-Iron Age pottery. Fill 158 of pit 157 contained two sherds of pottery of the same date, along with a single sherd of early prehistoric pottery. Both were friable dark grey clay silts.

Pits 153 and 163 were sub-circular in plan, measuring 1.15-1.30m in diameter and 0.12-0.50m deep, both with a flat base and near vertical sides. Secondary fill 161, of pit 163, a moderately compacted dark grey sandy silt, contained 10 sherds of late-Iron Age pottery, as well as environmental



Fig. 5. Section 1: profile of trackway and ditches

evidence such as charred remains of cereal grains and chaff. Fill 154, of pit 153, was a similar deposit and contained a single sherd of pottery of the same date.

Pits 177, 181 and 186

The pits were located to the south of the central enclosure group, and a short distance to the northeast of pit group 153, 155, 157 and 163 (Figure 3), and were grouped due to their similar size and profile and their proximity to one another.

Pit 177 was sub-circular in plan, 1.02m in diameter and 0.25m in depth, with a bell-shaped profile. The sole fill (188), a dark grey-green sandy silt, contained occasional charcoal flecking and three sherds of late Iron Age pottery. Pit 181 was ovoid in plan, 1.75 m in length, 1.20m in width, and 0.45m in depth. The sides sloped sharply to a flat base. The upper of the two fills (183) contained four sherds of Late Iron Age pottery.

Pit 186 was circular in plan, 1.65m in diameter and 0.35m in depth, with vertical sides and a flat base. The secondary (?dumped) fill (187) contained five sherds of late Iron Age pottery, along with fragments of animal bone, charcoal and limestone.

Pits 88, 98 and 106

Pits 88, 98 and 106 were aligned north-south, located c.5m to the west of gully 151. Again, they were grouped due to similar profiles and dimensions, and proximity to each other. All were filled by green or grey-brown silty clays with moderate to high charcoal content.

Pit 88 was a sub-circular cut with a bell-shaped profile and a flat base, 1.04m in diameter and 0.52m deep (Figure 6, section 2). Both the primary (89) and the tertiary (90) fills contained pottery, with nine and 20 sherds of Late Iron Age date being recovered respectively.

Pit 98 was ovoid in plan with an undercut bellshaped profile and a flat base, 1.5m long, 0.80m wide and 0.5m deep. Primary fill 99 contained some charcoal, five sherds of late Iron Age pottery and fragments of animal bone. Secondary fill 100 contained charcoal and 12 sherds of Iron Age pottery, some of which were decorated.

Pit 92 was sub-circular in plan, 1.16m in diameter and 0.85m deep, with vertical sides and a flat base. It truncated pit 98, and was filled with deposits of green-brown silty clay. A sample was taken from the primary fill (93) of the feature because of the high frequency of charcoal. The results of the sample indicated the presence of mineralised Brassica seeds, in addition to charred cereal grain and chaff. Secondary fill 94 contained one sherd of late Iron Age pottery.

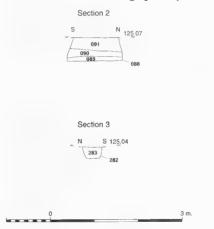


Fig. 6 Sections across Pit 88 and Gully 210

Pit 106 was the most northerly of the group of the three possible storage pits. Sub-circular in plan with a bell-shaped profile and a flat base, it measured 1.17m in diameter and was 0.52m deep. Pottery dating to the late Iron Age was found in secondary fill (108). Environmental samples were taken from fills 100 and 108 (of pits 98 and 106 respectively) which indicated the presence of cereal chaff and grain, as well as charcoal and hazelnut shells. Fill 100 also contained very high quantities of mineralised Brassica seeds. Pit 215 was the largest of the Iron Age pits to be found on this site, and was situated at the western extremity of the spread of contemporary features (see Fig 3). It was circular, 3.2m in diameter and 0.5m in depth, with steep sides and a slightly concave base. Primary fill 214 contained five sherds of late Iron Age pottery along with animal bone. Upper fill 213 contained occasional charcoal flecks and 11 sherds of late Iron Age pottery.

Roman activity

The trackway (Figures 3 & 5)

A ditched trackway (37) ran NNE-SSW across the northern extent of Area 1. The feature measured *c*.125m in length and was 11m wide at its widest point. The flanking ditches (39 and 54) measured 1.5-2.0m wide and 0.65m deep, with 'U'-shaped profiles. The distance between the ditches measured *c*.5-7 m, and formed a 'hollow' trackway displaying wheel ruts cut into the natural, overlain by up to 0.3 m of dark grey-brown clay silt, which also filled the upper levels of the two ditches. Pottery dating to the 2nd to 4th century AD was recovered from within the ditch fills, as well as late Roman and Saxon pottery from the deposits (40) filling the hollowed trackway.

Saxon activity

The Saxon activity comprised two pits (63 and 134). Pit 63 cut the northern edge of the trackway. The pit was 1.8m in diameter and 0.29m deep. Fill 64 contained two sherds of Saxon pottery and a large quantity of animal bone. Upper fill 65 contained one sherd of Saxon pottery. Pit 134 was situated against the south-eastern edge of the site, cutting the arc of the Iron Age gully 210. The pit was subcircular in plan, measuring 3.88 x 2.56m and 0.48m deep, with steep sloping sides and a flat base. The primary fill (160) contained seven sherds of Saxon pottery, residual Roman pottery, animal bone and a late Roman copper alloy coin (sf 18). The final fill 135 contained 14 sherds of Saxon pottery, animal bone and a late Roman catapult bolt-head (sf 19, Figure 8, no.3).

Area 2 (Figure 4)

Only a minimal amount of activity was identified in this area, consisting of three ditches, and a spread of buried medieval ploughsoil. All three of the ditches were cut into the natural (510). Ditches 505 and 512 were both sealed by a medieval plough soil (501/515). Ditch 505, orientated north-east to south-west, was $33m \log_2$, 1.34m wide and 0.26m deep. The sole fill (504) contained one sherd of 10-12th century pottery. Ditch 512, orientated north-south, was c.4 m long, 0.6m wide and 0.1m deep, with gradually sloping sides and a rounded base. A terminus was identified at its northern end. No datable material was recovered from the single fill. Ditch 517, orientated north-south, was 24m in length, 1.0m wide and 0.26m deep. A terminus was identified at the southern end of the feature. No datable material was recovered from the single fill.

From the ploughsoil (501/515) a total of six sherds of pottery of 10-12th century date were recovered. An environmental sample taken from the deposit identified the presence of free-threshing cereal grains.

Area 4 (Figure 4)

Ten intercutting ditches were identified across Area 4. 0.8-2.4m in width, and 0.1-0.6m deep, all had steep sides and concave bases. All of the features were sealed by a probable medieval ploughsoil (702). The pottery from the features indicates a late Iron Age-early Roman date.

THE FINDS

The Pottery by Jane Timby

A moderately large assemblage of some 901 sherds (9.5kg) of pottery was recovered. Although the group largely comprises sherds of middle-late Iron Age date, a diverse chronological history of activity of the area is indicated by the presence of late Neolithic, ?Bronze Age, Roman, Saxon, medieval and post-medieval ceramic material.

Pottery was recovered from a total of 101 contexts, mainly from Area 1. Area 2 produced just nine sherds and Area 4, 34 pieces. The majority of the groups are quite small, 72% of the contexts having 10 sherds or less. Only seven contexts yielded between 21-50 sherds and just one context (133 - the layer of trample or midden deposit within enclosure 309) produced in excess of 50 sherds.

The overall average sherd size at 10.6g is

moderately good considering that much of the material is handmade and not very robust. The sherd preservation is typical of non-primary rubbish deposits. There are no complete vessels although there are a few apparent ancient joins within contexts, and at least one profile can be reconstructed. Surface preservation is generally quite good and surface finishes such as burnishing could be identified on many sherds.

Methodology

The material was sorted into broad fabric groups, based on the macroscopically visible inclusions present in the pastes, and coded accordingly. Subdivisions were made, aided with a x20 binocular microscope, based on the size and frequency of the inclusions. For the Roman material use was made of the national Roman reference codes where relevant (Tomber and Dore 1998). A quantification by sherd count and weight for each recorded context was made and the data entered as an Excel spreadsheet. Table 1 summarises the quantities of each defined fabric. Table 2 summarises the main distinguishing fabric characteristics and associated forms based on featured sherds. Table 3 details the pottery recovered from the environmental samples.

The contexts were grouped into ceramic phases on the basis of the pottery present and these form the basis of the following report.

Ceramic phase 1: early Prehistoric

The earliest recognisable material present consists of 17 very fragmentary sherds, probably from a single vessel (Figure 7.1) from pit 19. The sherds had spalled, probably as the result of heat. The paste (fabric EP1) is very fine with no visible filler. One fragmentary rim sherd and joining bodysherd show the vessel to have been decorated on both the interior and exterior surfaces with twisted-cord impressions. The rim is internally concave. This type of vessel and decoration is typical of Peterborough style dating to the later Neolithic.

Three other sherds were noted which also appear to date to the earlier prehistoric period although in all cases theses were redeposited in later contexts. A single large coarse, calcined flinttempered sherd (fabric EP2), perhaps urn, was redeposited in a ditch in Area 4. A small scrap of sandy ware with flint-tempering (fabric EP3) came from the fill of rut in the trackway and a small grogtempered sherd (fabric EP4) typical of early Bronze Age technology came from an Area 1 pit.

Ceramic phase 2: middle-late Iron Age

Most of the assemblage, some 703 sherds (78%), is typical of the middle to later Iron Age of this area. The group as a whole is remarkably homogeneous both in terms of fabric and form. Sandy fabrics (fabrics S1 and S2) dominate the group, the latter having a typical glauconitic paste suggestive of a source from the local Lower Greensand deposits. The vessels appear to mainly comprise plain, burnished saucepan pots (Figure 7.2-3) or vessels developed from the saucepan-style and slightly more ovoid jars (Figure 7.4-6) and globular bowls (Figure 7.7). Only three saucepan pots are decorated: a sherd from an Area 1 pit has a tooled arc (Figure 7.3); whilst sherds from pits 88 and 98 have a burnished lattice design (Figure 7.2). A fine, shelly limestone fabric (L1) was also used to make saucepan pots.

Some sherds contain carbonised residue on the internal surfaces or external sooting. Other sherds had calcareous furring on the interior from containing or heating water.

The saucepan pots generally date the assemblage to the middle or later Iron Age (400-100 BC). The type is well known across the Wessex region with comparable examples from sites in Wiltshire, typified by Cunliffe (1991, 81) as the Yarnbury-Highfield style. Examples similar to those at Devizes also occur further afield at Hengistbury Head (Brown 1987, ill. 180) where the type appears to continue into the later Iron Age period (Brown 1987, 305).

In addition to the pottery there were three joining pieces of a perforated slab or vessel (Figure 7.9) from an Area 1 pit whose purpose or function is unknown. The fabric is the same as that used for the saucepan pots.

Ceramic phase 3: Late Iron Age - early Roman

The presence of a number of handmade grogtempered sherds which show some broad semblance to the later Savernake pottery (Annable 1961, 142-55), along with some bead-rimmed vessels, suggest continued activity in the area in the lst century AD. Early Roman pottery is represented by grog-tempered sherds from the local Savernake industry, again mainly bead-rimmed jars. Of particular note is the presence of a single imported South Gaulish samian dish (Drag form 15/17) of pre-Flavian date. This sherd occurred in a ditch in Area 4 alongside Savernake ware. Odd imported wares noted at other lst century sites in Wiltshire such as Oare (Cunnington 1909; Swan 1975), Table 1Summary of the pottery

Period	Fabric	Description	no	wt	eve
EARLY	EP1	very fine paste	17	39	5
PREHISTORIC	EP2	coarse flint-tempered	1	108	0
	EP3	sandy with flint	1	2	0
	EP4	grog-tempered	1	5	0
Sub-total			20	154	5
IRON AGE	S1	fine sandy	361	3280	147
	S2	orange sandy with iron	291	3821	62
	L1	micaceous, frequent limestone	32	293	21
	L2	oolitic limestone	9	23	0
	1L3	sandy with sparse limestone	1	3	0
	SI,	sandy with rare oolitic limestone	4	22	0
	MISC	other	5	16	0
Sub-total			703	7458	230
LIA/ERO	G1	sandy with sparse grog	3	112	0
	G2	Savernake variant	3	32	õ
	G3	Savernake ware proper (SAV GT)	17	197	0
	G4	Savernake variant	6	103	0
Sub-total	01	Savernake variant	29	444	0
Sub-totai			2.9	TTT	U
ROMAN	SG/CGSAM	South/Central Gaulish samian	8	12	5
	DOR BB 1	Dorset black burnished ware	6	17	5
	OXF RS	Oxfordshire colour-coated ware	7	104	9
	OXF WH	Oxfordshire whiteware	1	25	7
	OXF PA	Oxfordshire parchment ware	1	6	0
	NFO CC	New Forest colour-coat	1	54	0
	SOW OX	South-west oxidised ware	4	4	0
	SOW WS	South-west white-slipped	2	12	0
	GREY	grey sandy wares	15	178	23
	OXID	various oxidised sandy wares	14	27	0
Sub-total			59	439	49
SAXON	SXORG1	sandy. organic-tempered	49	341	7
	SXORG2	finely micaceous organic-tempered	2	16	0
	SXORG3	organic-tempered	8	23	0
Sub-total			59	380	7
MEDIEVAL	MED1	Savernake/Braydon Forest	5	225	40
	MED2	sandy with rare limestone	1	28	5
	MED3	finely micaceous. flint, calcareous	1	3	0
	MED4	coarse sandy ware	1	45	20
	MED5	sand with rare calcareous	1	29	0
	MED6	sandy with voids (calcareous)	1	16	7
	MED7	oxidised sandy	1	10	0
Sub-total		,	11	356	72
POST-MED		various	16	237	0
Date unknown	UNID		4	55	10

901 9523 373

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Table 2: Pottery fabrics and associated forms

Fabric EP1	Descriptions/Reference very fine paste, no inclusions. Twisted cord decoration.	Featured sherds bowl (Fig 7.1)	Date late Neolithic
EP2	Oxidised thickwalled (Amm) with coarse, calcined flint		
EDA	temper		?Bronze Age
EP3	sandy with flint		Early Prehist
EP4	grog-tempered		?Bronze Age
S1	Black or brown, dense fine sandy ware, occasional iron.	saucepan pot, ovoid jars, gl	obular
01	black of blowing denoe line sundy while, becasionar non.	bowls (Fig 7.2-4,7-9)	M-LIA
S 2	Orange glauconitic sandy ware.	saucepan pot, jars (Fig 7.6)	
LI	Micaceous, moderate frequency of very fine shell and limestone.		
L2	Red-brown or grey with moderate-common spherical voids		
	and red iron. Scatter of ill-sorted rounded, polished quartz.		M-LIA
L3	sandy with sparse limestone		M-LIA
SL	Sandy paste, finely micaceous with rare oolitic limestone	Jar	M-LIA
Misc	other		M-LIA
G1	Light grey/brown finely micaceous. Sparse light coloured	Beaded rim and everted rin	
	grog/clay. At x20 paste finely speckled with brown iron.	jars	LIA-early RO
G2	Dark grey/brown/orange fabric. Very soapy feel. Sparse to		
	moderate sub-ang War-rounded grog/clay pellets.	D 1 1	LIA-early RO
64	Savernake ware proper SAV GT (Tomber & Dore 1998, 191)	Beaded run jars	LIA-early RO
G4	Savernake variant	Dres 15/17	LIA-early RO
SGSAM CGSAM	South Gaulish samian Central Gaulish samian	Drag. 15/17	pre-Flavian C2nd
DOR BB1	Dorset black burnished ware (Tomber & Dore 1998, 127)	Drag. 37 Jar	C2nd C3rd-4th
OXF RS	Oxfordshire colour-coated ware (Tomber & Dore 1998, 127)	Mortaria (Young 1977, C97	
OXF WH	Oxfordshire whiteware (Tomber & Dore 1998, 174)	Mortaria	C3rd
OXF PA	Oxfordshire parchment ware (Tomber & Dore 1998, 173)	ivioi tarra	C4th
NFO CC	New Forest colour-coat (Tomber & Dore 1998, 141)		C4th
SOW OX	South-west oxidised ware		late C2-C3
SOW WS	South-west white-slipped (Tomber & Dore 1998, 192)		C2-C3
GREY	grey sandy wheelmade wares	Everted rim jar	Roman
OXID	various oxidised sandy wheelmade wares		
SXORG1	Sandy paste, well-sorted rounded to sub-angular fine quartz		
	sand. Sparse to moderate frequency coarse organic temper.	Jars (Fig 7.10-11)	Saxon
SXORG2	Micaceous, very fine smooth paste with moderate to common		
	frequency of organic-temper.		Saxon
SXORG3	Glauconitic sandy paste, generally orange surface with sparse		_
	to moderate organic temper.		Saxon
LEDI			
MEDI	Savernake/Braydon Forest (Oxford type OXAQ, Mellor	Les (Eie 7 12 14)	C12 14th
MEDO	1994, 100)	Jar (Fig 7.12-14)	C12-14th
MED2	Finely micaceous with a moderate frequency of well-sorted rounded polished quartz sand, some iron stained.	Ior	C12-14th
MED3	Finely micaceous with a sparse coarse rounded quartz and	Jar	C12-14ui
WIED5	rare. flint. East Wiltshire/Kennet Valley type.	Jar	C12-14th
MED4	coarse sandy ware	Jar (Fig 7.15)	C12-14th
MED5	sand with rare calcareous	Jar	C12-14th
MED6	Orange to grey sandy fabric. Well-sorted sparse rounded,		
	polished ferruginous sand and sparse voids (calcareous).	Jar (Fig 7.16)	C12-14th
MED7	Orange fabric. Common frequency fine well-sorted round to		
	sub-angular quartz sand, iron stained. Rare limestone and		
	iron. Glaze.	Jug	C12-14th
PMED	glazed red earthenware, china, German stoneware,		
	iron-glazed ware		C18-20th

Table 3: Pottery recovered from environmentalsamples

Context	Sample No	Date	Wt	No
39	4	LIA-early RO	4	1
93	11	M-LIA	1	1
100	8	M-LIA	27	5
108	12	M-LIA	25	8
161	7	M-LIA	31	9
199	9	M-LIA	305	44
227	10	M-LIA	6	2
515	5	MED	128	4
702	6	PMED	4	5
Total			531	79

Boscombe Down West (Richardson 1951) and Casterley Camp (Cunnington and Cunnington 1913) may be the result of pre-or early postconquest trade or contact from the Hengistbury Head - Poole Harbour coastal sites where imports are relatively common.

Ceramic phase 4: Roman

Roman wares proper only account for 6.5% of the assemblage, some 59 sherds. These appear to fall into two chronological groups: 2nd century and later 3rd-4th century. With such a small collection it is impossible to say whether there is continuity of use of the site throughout the Roman period. Sherds of local south-west white-slipped ware and oxidised ware along with Central Gaulish samian could suggest later 2nd to 3rd century activity. Most of the 2nd century wares, some 38 sherds, are associated with the Area 1 trackway. Sherds include local Wiltshire type grey and oxidised sandy wares, a Dorset black-burnished jar, two small pieces of samian and Savernake ware. A layer (40) that filled the hollowed trackway contained the base of a New Forest colour-coated beaker dating to the later Roman period. Other late Roman wares, including several products of the Oxfordshire industry, were recovered from pit 134, one of the trackway ditches and the trackway fill. Some of the late Roman sherds, including an Oxfordshire red-slipped mortaria, are redeposited in Saxon contexts. This is a recurrent phenomenon, possibly suggesting deliberate curation or continued use of Roman specialist wares in the immediate post-Roman period (see Young 1977).

Ceramic phase 4: Saxon

The assemblage contains 59 sherds (6.5% by count) of organic-tempered ware typical of the Saxon

period. At least three fabric variants are present; SXORG1-3. Featured sherds are sparse but include two rimsherds from unstratified material (Figure 7.10-11). There are no decorated wares. Organictempered Saxon wares are traditionally dated to the early Saxon period (5/6th-7/8th) but recent work from a settlement at Collingbourne Ducis, Wiltshire, supported by radiocarbon dates, suggests the tradition is perhaps quite long-lived, lasting well into the middle Saxon period (8th/9th century) (Timby in prep). The group here is too small for detailed work and in the absence of independent dating the wares could date anywhere from 5th-9th centuries.

Ceramic phase 5: Medieval

At least 10 sherds of medieval pottery were recovered, mainly from handmade, plain jars and at least one handled glazed jug/pitcher. Six of the sherds are rims, five from sharply everted jars from layer 501/515 and ditch/gully 505 (Figure 7.12-15). The style of these vessels suggests these could be quite early in the medieval sequence. The sixth rim (Figure 7.16) came from a ditch in Area 4 and the jug handle came from the Area 4 ploughsoil. Most of the fabrics appear to be types local to East Wiltshire with postulated sources along the Kennet Valley. Fabric MED 1 equates with Mellor (1994, 100 ff) fabric OXAQ, which is thought to come from the Savernake/Braydon Forest area. It was a long-lived industry, first documented from the early 12th century and continuing into the 15th century.

Ceramic phase 6: Post-medieval/modern

Sixteen sherds of post-medieval material are present, mainly recovered from the ploughsoil and sub-soil layers. Sherds include glazed red earthenwares, black iron glazed kitchenware, industrial white earthenware, and a single sherd of imported German stoneware.

Catalogue of illustrated sherds (Fig. 7)

Late Neolithic

1. Decorated bowl, Peterborough style. Fabric EP1. (pit 19, fill 21)

Iron Age

2. Saucepan pot decorated with a burnished lattice. Fabric S1. (pit 98, fill 100)

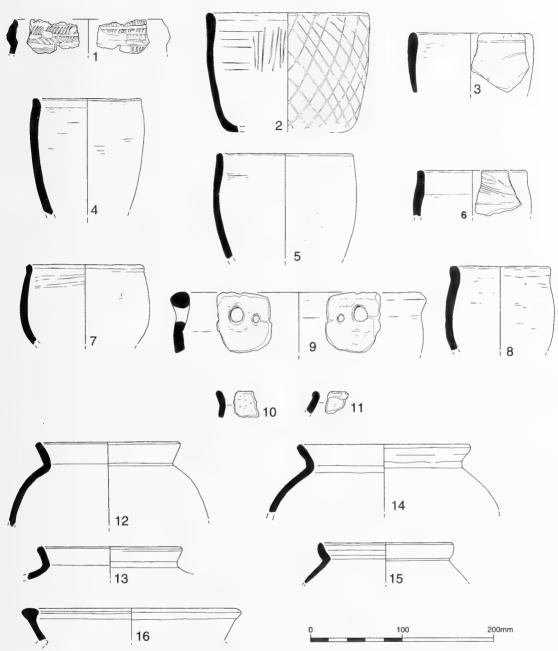


Fig. 7. Sherds from excavations

3. Saucepan pot with tooled decoration. Fabric SI. (pit 168, fill 170)

4. Saucepan pot with a burnished finish. Fabric S1. (pit 271, fill 286)

5. Saucepan pot in a fine limestone paste. Fabric Ll. (pit 195, fill 201)

6. Saucepan pot with diagonal scratch-lines made in antiquity. Fabric S2. (pit 117, fill 118)

7. Globular-bodied bowl with a burnished exterior. Fabric S1. (ditch 280, fill 281)

- 8. Ovoid jar with a slightly thickened rim. Fabric S
- 1. (pit 216, fill 217)

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9. Vessel or fired clay object. Two holes of different size made before firing. Slight thickening at lip. Fabric S1. (pit 127, fill 128)

Saxon

10. Rim and bodysherd from a simple, everted handmade jar. Black in colour. Fabric SXORG1. Unstratified (context 7).

11. Jar with a slightly thickened rim. Black in colour. Fabric SXORG1. Unstratified (context 7).

Medieval

12-14. Handmade jars with plain, sharply everted rims. Fabric MED1. (layer 515).

15. Thin-walled plain jar with an everted rim. Fabric MED4. (ditch 505, fill 504)

16. Handmade jar with an inturned rim. Fabric MED6. (ditch 755, fill 756)

Conclusion

The pottery recovered from the archaeological work is quite diverse chronologically with material of Neolithic, Iron Age, Roman, Saxon, Medieval and post-Medieval date. The group is really too small to determine whether there is complete continuity of occupation from the middle Iron Age through to the late Saxon/early Medieval period or whether occupation/use of the area has been intermittent through time.

Excavated settlement sites of the middle-late Iron Age are quite poorly documented from the Wiltshire area, most of the sites of similar date having been investigated earlier this century. Similarly evidence of Saxon domestic occupation is quite sparse making the pottery here a valuable addition to the known assemblages from the area.

The struck flint by Hugo Lamdin-Whymark

Forty-one pieces of struck flint and a single piece of burnt unworked flint were recovered from twenty contexts. All the flint from site is residual, mainly originating from the topsoil, although a few pieces were found in Iron Age contexts. The flintwork appears to be early Neolithic to Bronze Age in date. The artefacts were catalogued according to broad artefact/debitage type; general condition was noted and dating attempted where possible. Unworked burnt flint was quantified and weighed.

Raw material and condition

All the raw material used for lithics on site was flint. Much of the flint appears to be derived from river gravels. One distinct flint type was noted several times in the assemblage. This is a dark grey colour with many small light grey inclusions and a thick slightly weathered grey cortex. It is possible that the source of this flint is close to the chalk, although not directly from it.

The majority of the flint from site is uncorticated, although a few pieces exhibit either a light cortication or a heavy white cortication. A total of 10 flints (25% of the assemblage) were either rolled or exhibited some form of post-depositional damage. This degree of post-depositional damage and the distribution across a wide variety of contexts suggests that possibly the entire assemblage is residual.

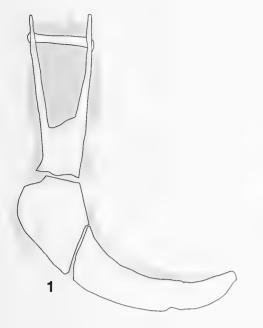
The assemblage

The composition of the flint assemblage is shown in Table 4. It is dominated by a mixture of soft- and hard-hammer struck flakes. Several of these are clearly utilised and one has had the edge rounded through use. It has been suggested that this form of use-wear results from the scraping of animal hides (Tringham *et al.* 1974, 187-189).

A fragment of a late Neolithic or Early Bronze Age plano-convex knife represents the only datable artefact present in the assemblage. Technological traits do however assist in further dating the assemblage. A Levallois core is datable to the later Neolithic, whereas the three blade cores would appear to be earlier Neolithic. These three cores all

Table 4: All flint by category.

CATEGORY TYPE	No. of flints
Flake	28
Blade-like	2
Irregular waste	1
Core single platform blade core	2
Other blade core	1
Single platform flake core	1
Multiplatform flake core	1
Levallois core	1
Plano-convex knife fragment	1
Retouched flake	3
Grand Total	41



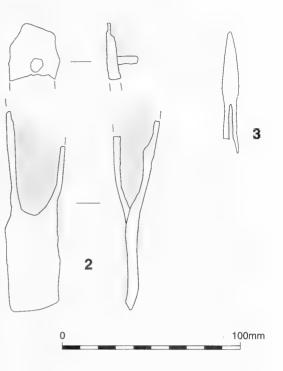


Fig. 8 Iron Age and Roman objects

exhibit fine blade scars, platform abrasion and one clearly has had a rejuvenation tablet removed. The presence of blade cores, yet absence of blades in the assemblage, is peculiar, although the small assemblage size, and the possibility of inadvertent collection bias may be distorting the picture somewhat. A total of 11 flints were broken and five flints were burnt.

Metal objects by Kate Atherton

38 metal objects, all in a poor and fragmentary condition, were recovered from the excavation. With the exception of a Roman coin, all were iron. The greater part of the assemblage comprises a collection of 24 fragmentary nails which were mainly recovered from late post-medieval layers. A further five objects were small undiagnostic pieces of sheet or strip which are fully described in the archive catalogue and are not further considered in this report. Similarly an undiagnostic broken hook or holdfast found in a late post-medieval context is also catalogued in the archive report.

The remaining eight objects relate to occupation of the site during the Iron Age and Romano-British periods. The Iron Age objects comprise an iron brooch pin, a pick head and a curved hooked blade. The Roman objects consist of a coin, a catapult bolt-head, a hobnail and two possible cleats from a Roman boot.

The Iron Age objects

The iron brooch pin (sf 9) was found in an Iron Age post-hole (15) and would have been part of a La Tène brooch. These brooches were commonly made from iron or copper alloy throughout the Iron Age. The pin is 60mm long and expands at the head to form part of the spring. However, it is in a heavily deteriorated condition and even the x-radiograph does not aid identification or closer dating.

Tools are comparatively rare finds from Iron Age contexts. The socketed hooked blade and handle (sf 21, Figure 8.1) was found in three pieces in an Iron Age post-hole in Area 1 (fill 299 of posthole 298). The curved blade is approximately 90mm long, with a span of 125mm, and the handle socket has a rectangular section and an open V-shaped slot down the centre. The end of the socket is damaged but the x-radiograph suggests that the handle may have been secured with a rivet. Similar implements have been found from other Iron Age and Roman sites, including Thornhill Farm, Fairford, Gloucestershire (Boyle forthcoming, no. 76) and Danebury (Sellwood 1984, 346-349). Curved blades are found in numerous shapes and sizes which suggest a variety of functions. The relatively shallow curve of the blade might suggest that it was double-edged, although it was not possible to verify this from the surviving fragments. Such blades were interpreted at Danebury as reaping hooks although the small size of the tool casts doubt on its use as a scythe. It is possible that it was used to strip twigs and foliage from poles during the manufacture of wattle or for preparing fodder (Sellwood 1984, 349).

The fragmentary head of a small pick with a chisel blade (sf 20, Figure 8.2) was found in an Iron Age pit (224 - fill of 223, not illustrated) in Area 1. The blade is rectangular, 30mm wide throughout its length. The end is slightly curled over, possibly through use. The socket of the tool is fragmentary but the socket appears to be rectangular or oval in section. The x-radiography shows the beginnings of another point on the other side of the socket, suggesting it was a doublepointed tool that would probably have been used in stone working, although it is possible that it was used for woodworking. The pick is most similar in size and shape to the double-pointed type 2 pick found at Hod Hill, Dorset, which had a chisel at one end and a spike-blade on the other (Manning 1989, 30, fig. 6, no. 2). The chisel end is a similar size to the fragment from Devizes.

The Roman objects

Five Roman objects were recovered, three from Roman deposits, and two from Anglo-Saxon contexts. Three items probably relate to Roman footwear and were found in Roman contexts. Deposits filling the hollowed trackway produced a hobnail fragment and two fragmentary strips with turned-up ends which were probably cleats used on the soles or heels of boots. One cleat is formed from a rectangular strip (Manning 1989, pl. 61, 59) and the other is smaller and leaf-shaped (Manning 1989, pl. 61, no. 58). Both appear too small to have been used to hold wood together. However, the condition of both is poor.

The two residual Roman items include a Valens coin (sf 18, from Anglo-Saxon pit 134) which was probably minted in Trier and dated from 364-378 AD. The other object (sf 19, Figure 8.3) is a nearcomplete catapult bolt-head that probably dates from the mid-1st century and was also found in pit 134. The shape of the object is typical with a pyramidal head and a conical socket, which was broken. The length of the bolt-head at 71mm is also typical and the diameter of the socket (10mm) is standard. Similar bolt-heads were classified as type 1 at Hod Hill, Dorset, and were dated to the mid-1st century (Manning 1989, pl. 78, V185).

Conclusion

The Iron Age tools are both rare from Iron Age contexts, and the pick head in particular is an unusual find. Both objects hint at activities at the site during this period, such as preparing materials for the construction of houses or fences, and a pick for working stone or wood for structures or for tools. Post-Iron Age presence in the area is signalled by an early Roman catapult bolt-head and Roman footwear components and continues with the find of a late 4th-century coin in an Anglo-Saxon deposit.

ENVIRONMENTAL EVIDENCE

Animal bone by Bethan Charles

1151 fragments of bone were retrieved by hand from the site (Table 5), of which only 21% could be identified to species due to the poor and fragmentary

Table 5: Number of hand-collected bone by species and period.

PERIOD	HORSE	CATTLE	SHEEP	PIG	DOG	CAT	UNIDENTIFIED
3rd - 1st BC	6	53	91	10	1	0	629
LIA/ER	0	0	0	0	0	0	1
Roman	0	10	4	0	0	0	19
Saxon	0	21	3	2	0	1	135
Medieval	0	3	0	0	0	0	12
Post Medieval	0	15 .	0	0	0	0	44
Undated	4	7	8	1	0	0	71
Total	10	109	106	13	1	1	911

Table 6: Number of sieved bone by species and period.

PERIOD	SHEE	P PIG	SMALL	FROG	UNIDEN-
			RODEN	Г	TIFIED
3-1st BC	21	1	1	4	42
Post Med	2	0	0	0	272
Undated	5	0	0	0	9
TOTAL	28	1	1	4	323

condition of many of the bones. In addition to this 357 fragments of bone were retrieved from sieving of environmental samples through a mesh of >10mm, 10 - 4mm and 4 - 2mm (Table 6).

Methodology

The calculation of the species recovered from the site was done through the use of the total fragment method. All fragments of bone were counted including elements from the vertebral centrum, ribs and long bone shafts. Sheep and goat bones were separated using the criteria of Boessneck (1969), and Prummel and Frisch (1986). The ageing of the domestic animals for the assessment was based on tooth eruption and epiphyseal fusion of the bone. Tooth eruption and wear were measured using a combination of the tables of Payne (1973), Grant (1982) and Halstead (1985). Silver's (1969) tables were used to give timing of epiphyseal closure for cattle and sheep, since there were not enough indicative elements from the other domestic species (Tables 8-11).

Condition

The condition of the bone was graded from 1 to 5 using the criteria stipulated by Lyman (1996), grade 1 being the best preserved bone and grade 5 indicating that the bone had suffered such structural and attritional damage as to make it unrecognisable. The majority of the bones were in medium to poor condition, around grade 3 to 4. It can be seen from

Table 7 that a large number of the bones had fresh breaks. This is almost certainly due to the fragile condition of many of the bones, which would also have affected the number of bones identified. It is also likely that some of the butchery and gnaw marks were not visible due to damage to the surfaces of the bones.

Species Representation

Cattle appeared to be the most dominant species found through all but the Iron Age periods. However, due to the bad condition of the bone, it is likely that cattle bones are over represented in the assemblage due to better preservation than the smaller, more porous bones of the sheep and pigs. There were no identified fragments of cattle bone found in the sieved material, again indicating that sheep may have been more numerous during the Iron Age occupation of the site.

There were no articulated remains found at the site. Part of a cattle skull was found in Saxon pit 63. However, it is uncertain if this was a 'deliberate' deposit or butchery waste.

Although there were few indicative elements showing the age at death of the cattle, it does appear from the tooth wear stages (Table 8) and the epiphyseal fusion of the bones (Table 9) that the majority of the cattle from the Iron Age features were likely to have been killed at more than 2 to 2.5 years of age. Similarly the few mandibles from the Saxon features indicate that the majority of the animals were over 2 years of age at death, although it must be borne in mind that the poor condition of many of the bones may have affected the preservation of the more fragile juvenile bones.

It can be seen from results of the analysis of tooth wear stages in Table 10 that age at death of all the sheep from the Iron Age features was 1-2 years or less. This also appears to be mirrored in the results of analysis of the epiphyseal fusion of the bones (Table 11).

Table 7: Condition of hand-collected and sieved bones.

PERIOD		BUTCH	ERY	BURNT		GNAW		FRESH	BREAK
		Hand	Sieved	Hand	Sieved	Hand	Sieved	Hand	Sieved
3 - 1st BC		13	1	3	5	2	1	437	28
LIA/ER		0	0	0	0	0	0	1	0
Roman		0	0	2	0	0	0	18	0
Saxon		5	0	0	0	0	0	133	0
Medieval		1	0	0	0	0	0	3	0
Post Medieval		0	0	0	0	0	0	23	6
Undated	7	2	0	0	4	0	0	100	0

Table 8:Tooth wear stages of the cattle after Grant(1982) and Halstead (1985)

SUGGESTED	STAGE	3RD -	SAXON
AGE		1ST BC	
14 - 21 months	D	0	0
21 - 27 months	E	0	1
27 - 36 months	F	0	0
Adult	G	2	1
old adult	Η	0	1

Only a few pig bones were identified from the assemblage, the majority of which were from Iron Age deposits. Both bones from the Saxon deposits were from immature animals. It is possible that the pig bones may have been under represented since the less mature bones are fragile and less likely to survive. Other domestic species included a small number of horse bones (mostly teeth), a dog tooth, and part of a cat mandible from a Saxon deposit.

Only a few wild species were found amongst the bones, all of which was from the sieved material. One small rodent incisor and four fragments of frog

Table 9:	Epiphyseal fusion of cattle bones after Silver
(1969)	

AGE	ELEMENT	3RD - 1ST BC		
		F	UF	
10 mo.	Scapula D	2	0	
18 mo.	Humerus D	1	0	
	Radius P	2	0	
2 - 2.5 yrs	Metacarpal D	1	0	
	Tibia D	1	0	
	Metatarsal D	0	0	
3.5 yrs	Calcaneum P	0	0	
5	Femur P	1	1	
3.5 – 4 yrs	Humerus P	0	0	
5.5 x 915	Radius D	1	0	
	Ulna P	0	0	
	Femur D	0	0	
	Tibia P	0	0	
	11010 1	~	0	

bone were found in Iron Age pits in Area 1. It is probable that these are non-anthropogenic, and likely to represent natural fatalities.

Pathology

A horse metatarsal from an Iron Age pit on Area 1 had signs of eburnation on its proximal articulation. The bone also had a cut mark on the shaft,

Table 11: Epiphyseal fusion of sheep bones

AGE	ELEMENT 3RD - 1ST		- IST BC
		F	UF
10 mo.	Humerus D	1	2
	Radius P	2	0
	Scapula D	0	0
1.5 – 16 mo.	Tibia D	0	1
	Metacarpal D	0	0
	Metatarsal D	0	0
2.5 - 3 yrs.	Calcaneum	0	0
	Radius D	0	2
	Femur P	0	1
3 – 3.5 yrs.	Humerus P	0	0
	Femur D	0	0
	Tibia P	1	1

indicating that the horse may have been butchered for human consumption. A cattle femur, from the same pit, had signs of eburnation around the head of the bone.

Discussion

The majority of the animal bones come from the Iron Age deposits, reflecting the fact that the main period of activity on the site was during this period. There were no particularly dense deposits of bone, although Iron Age gully 220 contained six sheep mandibles and a high number of loose teeth.

The majority of the cattle from the Iron Age deposits were mature animals and it is probable

Table 10: Tooth wear stages of the sheep according to period after Grant (1982) and Payne (1973).

SUGGESTED AGE	STAGE 3RD -	1ST BC	ROMAN	SAXON	POST MEDIEVAL
6 - 12 months	С	4	0	0	0
1 - 2 years	D	4	1	0	0
2 - 3 years	Е	0	0	1	1

that the emphasis at this site was on the use of cattle for traction purposes or as milk cows, rather than solely for their meat. It is, however, possible that young cattle may have been killed elsewhere or that their remains have not been preserved. A cattle femur with eburnation around the head, possibly caused by osteoarthritis, may have belonged to a working animal. In contrast to this nearly all the sheep bones from the Iron Age deposits appeared to belong to young individuals less than two years of age, indicating that sheep may have provided the majority of the meat during this period. The older sheep would have been kept for breeding and for their wool and dung. The few measurable bones from the cattle and sheep suggest that the animals were average size for the period.

Pigs do not appear to have been bred extensively at the site. However, since pigs were usually killed at a young age, their bones may not have survived as well as those of the older animals. The few horse bones found in the assemblage suggest that only a few were kept at the site during the Iron Age. Horses would have added little to the economy of the site and would have been kept for transportation or as a symbol of status.

The animal bone assemblage from the Iron Age deposits does not appear to represent deposits from a high status site, and is likely to be domestic refuse. Very little other information can be gleaned from the later phases of the site other than the presence of the animals on the site.

Charred and mineralised plant remains by Ruth Pelling

12 samples of deposit were taken during excavation for the extraction of charred plant remains. Samples of 10 to 40 litres, but usually 40 litres, were processed using a modified Siraf-type flotation machine and the flots collected onto a 250µm mesh. Given the proximity of the site to the Bronze Age midden at Potterne (Carruthers 1991, 2000) which is also on the Greensand soils and produced large quantities of mineralised remains, residues were collected onto a 500µm mesh and retained. Useful charred remains were recorded in 6 samples and good amounts of mineralised seeds were indeed present in three of those samples. All six samples were of 40 litres and were taken from pit deposits on Area 1 dated to the 3rd – 1st century BC.

Methodology

Samples were sorted under a binocular microscope at x10 to x20 magnification for seeds and chaff. Three samples (samples 8, 10 and 11) contained occasional calcium phosphate replaced mineralised seeds. The residues of these samples were shown to contain considerable quantities of mineralised seeds. Samples 8 and 10 were very rich so only one tenth of the flot and residue was sorted for mineralised remains. Charred remains were extracted from 100% of the flot and residue. Sample 11 produced fewer mineralised seeds so the complete residue and flot were sorted for both charred and mineralised remains.

Identification of seeds and chaff was based on morphological criteria and by comparison with modern reference collection held at the Oxford University Museum of Natural History. The results are recorded in Tables 12 and 13 in taxonomic order for weeds following Clapham *et al.* (1989).

Results

All six samples analysed contained charred remains of cereal grain and chaff. Cereal species identified were Triticum spelta (spelt wheat), Hordeum vulgare (hulled barely) and Avena sp. (oats). As no Triticum dicoccum (emmer wheat) was identified it is assumed that the less well preserved hulled wheats recorded as Triticum spelta/dicoccum are also of Triticum spelta. Asymmetric grains of Hordeum vulgare attest to the presence of the sixrowed variety. It was not possible to establish if the Avena sp. was a wild or cultivated variety. Occasional hexaploid Triticum rachis internodes are interpreted as being of Triticum spelta. In terms of grain Triticum spelta or Triticum spelta/dicoccum slightly outnumbers Hordeum vulgare while Avena sp. is uncommon. Glume bases of the hulled wheats dominate the chaff element, forming approximately 90% of the assemblages.

Weed seeds were present in each sample. The species represented are mostly characteristic of arable of ruderal habitats. Valerianella dentata (narrow fruited corn-salad) is particularly associated with arable fields, while other species could grow in ruderal habitats also. Corylus avellana (hazel) nut shell and Crataegus monogyna (hawthorn) are not arable weeds, but must have come from more scrubby vegetation. The Corylus avellana may represent food debris. The leguminous weeds (Vicia/ Lathyrus sp. and the Medicago/Trifolium/Lotus sp.)

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Table 12: The Charred Plant Remains (all original volumes are 40 litres)

		_					_
	Sample	8	10	11	12	9	7
	Context	100	227	93	108	191	161
Cereal Grains							
Triticum spelta	Spelt wheat grain	1	6	2	6	6	11
Triticum spelta/dicoccum	Spelt/Emmer wheat grain	6	5	2	4	1	4
Triticum sp.	Wheat grain	8	-	1	4	1	-
Hordeum vulgare	Barley, hulled assymmetric grain	-	1	-	1	-	-
Hordeum vulgare	Barley, hulled grain	3	-	-	2	-	-
Horedum vulgare	Barley	4	8	2	11	2	3
Avena sp.	Oats	2	-	-	3	1	-
Cerealia indet	Indeterminate grain	27	28	2	21	9	18
	Total grain	51	48	9	52	20	36
	-						
Cereal Chaff							
Triticum spelta	Spelt wheat glume base	8	13	4	16	6	19
Triticum cf. spelta	Spelt wheat glume base	_	3	-	_	-	-
Triticum spelta/dicoccum	Spelt/Emmer wheat glume base	137	89	44	71	17	35
Triticum sp.	Hexaploid wheat rachis	2	1	3	_	1	1
Hordeum vulgare	Barley rachis	-	-	1		1	-
		- 14	-	3	_	-	4
Avena sp.	Oats, awn fragments	-	-				4
Cerealia indet	Cereal basal rachis node		-	1	-	-	-
	Total chaff	161	106	56	87	25	59
Weed Seeds	_						
Ranunculus sugben Ranunculus	Buttercup	-	-	-	-	-	1
Ranunculus parviflorus	Small Flowered Buttercup	-	-	-	-	-	1
Brassica cf. nigra	cf. Black Mustard	1	-	-	-	-	-
Brassica/Sinapis sp.	Brassica/Mustard etc	1	-	-	-	-	-
Stellaria media type	Chick Weed	-	2	-	-	-	~
Caryophyllaceae		1	-	-	-	-	-
Chenopodium sp.	Goosefoot/Fat Hen	1	-	-	-	-	2
Chenopodium album	Fat Hen	-	1	1	1	1	-
Atriplex sp.	Orache	5	-	1	1	_	-
Chenopodiaceae		1	-	_	_	_	-
Vicia/Lathyrus sp.	Vetch/Vetchling/Tare	12	3	4	5	_	7
Medicago/Trifolium/Lotus sp.	Medick/Clover/Trefoil	7	5	4	_	_	3
Crataegus monogyna	Hawthorn	1	-	-	-	_	-
Umbelliferae	Hawmorn	1	_	_	_	-	_
	Vastanoos	-	2	_	2	_	_
Polygonum aviculare	Knotgrass				-	_	_
Fallopia convolvulus	Black Bindweed	-	1	-			
Rumex sp.	Docks	5	15	3	2	1	4
Polygonaceae		3	4	1	1	-	1
Corylus avellana	Hazel nut shell fragments	1	-	1	6	-	-
cf. Anagallis tpye	Pimpernel type	-	1	-	-	-	-
Odontites verna/Euphrasia sp.	Red Barstia/Eyebright	-	4	1	-	-	-
Plantago lanceolata/media	Plantain	1	-	-	-	1	-
Galium aparine	Goosegrass	4	20	1	4	1	2
Valerianella dentata	Narrow Fruited Corn Salad	1	-	-	-	-	-
Tripleurospermum inodorum	Scentless Mayweed	-	-	1	-	-	-
Eleocharis palustris	Common Spikerush	3	3	-	1	-	-
Carex sp.	Sedges	-	-	-	-	-	3
Lolium perenne type	Rye-grass	1	-	-	-	-	_
Poa annua type	Annual Meadow-grass	_	1	_	-	-	_
Bromus subsect Eubromus	Brome grass	9	3	-	1	2	1
Arrhenatherum elatius	False Oat-grass	-	1	_	_	-	_
Gramineae	Grass, small seeded	- 14	8	2	_	1	12
		6	o 1	-	3	-	-
Gramineae	Grass, large seeded Weed seed	26	18	- 1	5	_	-
Indet			93	21	32	- 7	43
Seeds/nutlets etc unless otherwise	Total Weeds	105	70	2 I	34	'	45

Seeds/nutlets etc unless otherwise stated

Table 13: Mineralized Remains

	Sample	8	10	11
	Context	100	227	93
	Fraction sorted	10%	10%	
Brassica/Sinapis sp.	Brassica/Mustard etc	1000 +	422	19
cf. Cruciferae		1	-	-
cf. Ranunculus subgen Ranunculus	Buttercup	-	-	7
cf. Caryophyllaceae		-	4	29
Chenopodiaceae		1	4	108
Medicago/Trifolium/Lotus sp.	Medick/Clover/Trefoil	-	-	1
Aphanes arvensis	Parsley-piert	-	-	20
Aphanes arvensis/Urtica dioica	Parsley-piert/Common Nettle	-	-	5
cf. Malus sylvestris	cf. Apple pip	-	-	1
Umbelliferae		-	-	10
Torilis japonica	Upright Hedge-parsley	-	-	1
Polygonaceae		14	38	22
cf. Urtica dioica	Common Nettle	-	-	2
Anagalis type		1	1	14
Lithospermum arvense	Corn Gromwell	1	3	6
Labiatae	Small seeded labiate	2	-	3
Sambucus nigra	Elderberry	_	-	1
cf. Sambucus nigra	Elderberry	-	1	3
Gramineae	Grass, small seeded	-	-	1
Gramineae	Grass, large seeded	1	-	-
Indet		16	49	176
Sphaeroceridae	Sewage Fly puparia	-	-	4
Indet	Fly puparia	-	-	16
Other	Fish verterae	1	-	-
Seeds/nutlets etc. unless otherwise sta	ated			

are more typically grassland species although they do occur in association with cereal remains. *Eleocharis palustris* (common spikerush) is characteristic of seasonally wet ground, and when found in association with cereal remains tends to be interpreted as derived from wetter parts of arable fields.

The mineralised remains in samples 8 and 9 are dominated by seeds of Brassica/Sinapis sp. (turnip/cabbage/mustard etc.). In sample 8, some 1000 seeds were counted while many more remained. The full sample must have contained in excess of 10,000 seeds in 40 litres. The seeds were more or less spherical in shape. They were too small for Sinapis alba (white mustard). The seeds could therefore be identified as Brassica sp. or Sinapis arvensis (charlock). The surface structure on the seeds was that of an internal calcium phosphate cast of the testa and did not show the external cell pattern of the seed. In the absence of any original surface structure it was not possible to identify to seeds further. One charred seed was identified as Brassica cf. nigra (black mustard) so it is possible that further Brassica nigra seeds are included.

Mineralised seeds of weed species were also recovered from the samples. While in samples 8 and 10 weed seeds were quite rare in relation to the brassicas, sample 11 was dominated by weed seeds with only few brassicas. A large number of seeds in this sample were poorly preserved and recorded as indeterminate. Of the better preserved seeds, most were from ruderal or arable species. In particular, seeds of indeterminate Chenopodiaceae were numerous. Other ruderal or arable species include Aphanes arvensis, Urtica dioica, Torilis japonica and the Polygonaceae. Lithospermum arvense is more characteristic of arable fields. All these samples could have been derived from cereal processing waste. A ruderal species which might also have been eaten, Sambucus nigra, would not have grown as an arable weed so can not have entered the deposit as a waste product of cereal processing. This sample also contained several fly puparia including 4 identifiable to the family level as Sphaeroceridae. Weed seeds identified from the other samples are of similar species though in much small numbers. A possible Malus sylvestris (crab apple) pip was recovered from sample 11. A fish vertebrae was present in sample 8.

Discussion

The charred assemblages

The charred remains are typical of sites at which a cereal economy based on spelt wheat and hulled barley is represented. These are the principal cereal crops recovered from much of southern Britain, including the Hampshire and Wiltshire area, during the Iron Age, and formed the staple of the cereal economy until the end of the Roman period (Grieg 1991; Campbell 2000). The presence of large quantities of spelt wheat glume bases suggests that the deposits sampled contain the by-product of cereal processing. Glume bases tend to survive charring less readily than cereal grains (Boardman and Jones 1990), hence the dominance of glumes over grain must indicate the presence of loose chaff as opposed to whole unprocessed spikelets. The large number of weed seeds are likely to have derived from arable weeds extracted from the cereal by sieving. The deposits therefore contain a mixture of cereal product (the grain) perhaps spoilt during processing, accidentally lost or deliberately discarded, with cereal processing by-products (the weeds and chaff). These remains might have been deliberately burnt on fires as waste or as fuel, or accidentally lost.

The mineralised assemblages

Mineralisation occurs when the organic component of a seed or plant item is replaced by inorganic deposits, usually calcium phosphate (Green 1981; Carruthers 1991). Medieval examples are well attested and indicate that the process most commonly occurs in cesspits or garderobes where phosphate particularly, and also calcium, both derived from faecal material would be present in solution in high concentrations. Animal bones might also provide a source of calcium phosphate, as might some plant material. It is also likely that particular soil types, most obviously chalk, would be a contributory factor in the mineralisation process. Iron Age examples are less well documented, although examples do exist from the Devizes area and more widely in Wiltshire and in Hampshire. In particular a large deposit of mineralised material was recovered from a midden at Potterne (Carruthers 1991, 2000). The plant remains recovered from Potterne were almost entirely weeds from waste-ground type habitats. Furthermore there was large-scale mineralisation throughout an extensive 1m deep layer with a distinct mineralconcreted layer beneath which only rootlets were

preserved and almost no seeds. The deposits were interpreted as representing *in situ* mineralised preservation and demonstrate that the process can occur in a greater range of conditions and contexts than previously thought.

Unlike characteristic medieval cesspit deposits, the Brickley Lane assemblages contain few potential food items other than the brassica seeds with only one fruit seed (the possible apple) and no bran fragments, and there are no mineralised concretions. The overall volume of mineralised material is actually very small despite the number of actual seeds being high. The sewage fly identified would live in sewage material, accumulations of animal dung or other decaying organic matter. The brassica, and perhaps the Sambucus nigra seeds identified in the samples could be derived from human faecal material, while the arable weeds, particularly Lithospermum arvense could have been eaten with contaminated bread. As only intact seeds tend to become mineralised the absence of mineralised cereal grains in a cesspit is unsurprising. Some human sewage may therefore be present in the sample. Some of the ruderal species may have been growing within or on a midden. Equally some animal dung may be represented although there are no grasses characteristic of grazed land. So, while some human sewage might be present, the pit does not have the characteristics of a cesspit. It is more likely that the backfill of the pit contained some sewage and/or manure/midden type material as well as other re-deposited refuse including the charred cereal processing by-products.

Similar material was recovered from middle-late Iron Age deposits recovered from beehive pits at Lains Farm in Hampshire (Carruthers 1992). In the Danebury Environs project (Campbell 2000) mineralised remains were recovered from several features of early to mid-Iron Age date but were absent from Late Iron Age deposits. Campbell (2000, 58) suggests that in the Early Iron Age faecal and other waste was being disposed of in pits rather than being deposited on middens, as at Bronze Age Potterne. She speculated that by the late Iron Age the need to manure the fields resulted in the material going straight out on to the land. The Brickley Lane material is late in date however, so would suggest that such material was still being disposed of in pits in the area. It is possible that the occurrence of prehistoric mineralised material in the area from the late Bronze Age onwards is itself because of a necessity to collect manure. The occurrence of such material in the region in the Late Bronze Age and

Iron Age may be more to do with density of occupation and intensity of agricultural production as well as the need to dispose of waste, as much as it is to do with soil types.

The mineralised deposits were dominated by seeds of Brassica/Sinapis sp. Large deposits of charred seeds of brassica, generally Brassica nigra if identified, have been recovered from a number of Iron Age sites in southern Britain. A deposit of nearly 500 seeds were recovered from an Iron Age pit at Balksbury Camp (de Moulins 1996, table 23) and another pure assemblage was found adhering to the inside of a pot base from Old Down Farm (Murphy 1977, pl. 14 and 74-5; Green 1981). A very large almost pure assemblage of over 2000 seeds was recovered from a pit at Biddenham Loop in Bedfordshire (Pelling, forthcoming). There does seem to be good evidence therefore that brassicas were being cultivated as a crop during the Iron Age, possibly over quite a wide area. Furthermore the large seed assemblages would suggest that the seeds themselves were harvested, either as an oil crop or to be eaten as intact seeds. (All species of Brassica and *Sinapis* have oily seeds with a mustard flavour.)

Conclusions

While the environmental sampling has only produced limited botanical samples, it has produced very useful data. The charred remains are typical of the period. The dominance of cereal waste products suggests that cereal processing activities were taking place at the site. The cereal species represented, spelt wheat and barley, are known to form the basis of cereal agriculture in the region throughout the Iron Age. The mineralised remains provide additional data that is only rarely recovered. The presence of such remains was predicted given the proximity to the Bronze Age midden at Potterne, also on the Greensand soils. Certainly the growing number of sites with mineralised seeds from the area suggests some common contributory factor. This might be to do with the soils, although it might also be to do with intensity of cereal agriculture and the need to collect manure. The large number of brassica seeds also adds to a growing body of evidence which suggests they were being cultivated at this time, possibly for oil.

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DISCUSSION

Area 1

Late Neolithic

The only feature associated with this period was a pit containing 17 sherds of Peterborough Ware. This pottery was decorated on both the interior and exterior faces and appears to be from a single vessel. No other features appear to have been associated with the pit, but the presence of a plano-convex knife and other pieces of worked flint of a broadly similar period add to the evidence for low-level Neolithic and possibly Bronze Age activity in the area.

Iron Age

Settlement structure

The distribution of the features suggests a focus of activity on the slight scarp overlooking the lower ground to the west and south and south-east, with the spread of features clearly related to the topography. It is possibly significant that the northern limit of feature distribution also seems to echo the line of the later Roman trackway. It is tempting to suggest, therefore, that there may have been a trackway or droveway on this line in the Iron Age, and a continuance of its use into the Roman period, although no direct archaeological evidence was found to support this contention.

The core of activity is represented by a 18.5m diameter penannular gully, its open west side facing a spread of pits, postholes and short shallow gullies. To the south west of the penannular gully lay a further small concentration of pits and postholes.

While the penannular gully (210) could represent part of a ditched enclosure, the curvature of the gully seems unnecessarily precise for such a function; it has much more in common with the eaves drip gully of a roofed building. Typical Iron Age round houses are commonly identified by rings of structural postholes; however, it is accepted that, under particular conditions of their construction or archaeological preservation, they may only be identified by the shallow drainage gully surrounding the structure itself. In this scenario, the walls of the building are made of turf blocks or cob (mud) plastered to a wattle screen. In either case, there is no need for a series of substantial structural postholes, and therefore it is quite possible that very little archaeological trace of the structure will remain other than the drainage gully, which would serve to channel water running from the overhanging eaves. Buildings identified in this way are fairly common; many examples are known from settlements through the South Midlands, such as Farmoor (Lambrick and Robinson 1979, 14, fig. 6), Larkwhistle Farm (Hardy and Cropper 1999, 4–5, figs 4 and 5) and Pennyland (Williams 1993, 20, fig.12).

The gully's position relative to the walls of the structure would depend upon the roof angle and the height of the walls, but an approximate diameter of the building can be estimated at 13-14m. This would put the building at the upper end of the range for contemporary structures, which are more typically between 8-11m in diameter (see Cunliffe 1991, 242-6).

None of the postholes within the hypothetical wall line of the building could definitely be identified as structural elements by their position; indeed, they may not be associated with the building at all.

To the west (the 'front') of the building, lay a scatter of pits, and short lengths of gully, which appear to represent fence lines of paddocks or small screens. The pits showed some variation in size which may relate to their original function. It is likely that the bell-shaped pits were originally dug for storage and later used as rubbish pits.

To the south of the main focus of activity there was a further small concentration of pits and postholes. The group of four pits appears to define the large postholes of a '4-post structure'. Their interpretation as elevated stores – possibly for grain (Cunliffe 1991, 376) – is generally accepted, and in this case the interpretation is supported by the presence of cereal grains and chaff in the posthole fills. The other pits and postholes in the vicinity possibly represent further small structures.

Settlement character and chronology

The artefactual and environmental evidence both point to a modest farmstead, practising a mixed farming regime. The presence of two iron implements (Figure 8.1-2), both agricultural tools, is unusual, as such implements would be valuable and not likely to be routinely discarded. It could be suggested from this that the site was abandoned suddenly, although there is no other evidence to support this hypothesis.

The pottery assemblage also confirmed the modest status of the settlement, with most of the assemblage deriving from typical 1st and 2nd century BC domestic forms, all locally made. The presence of 29 sherds of Late Iron Age/early Roman pottery is notable, but by its distribution appeared to imply a continuance of activity along the possible precursor to the Roman trackway (see above), rather than a continuance of occupation of the farmstead.

The environmental remains indicate an arable regime based on spelt wheat and hulled barley, with the notable addition, especially from pit 98, of Brassica, or mustard. As Pelling argues, the mineralisation of these seeds may be a factor of the local soil types, but could also suggest that some pits were being used either as *ad hoc* latrines or were being backfilled with midden material containing faecal material or manure.

The bone assemblage supports the conclusions drawn from the environmental evidence, that the character of the settlement appears to be that of a small mixed farmstead of unremarkable status. Cattle and sheep predominated, the former probably used for traction or milk production, the latter providing a meat source.

Settlement context

There is little evidence to indicate whether this farmstead was isolated, or formed part of a larger settlement. The clear western limit of the pit activity corresponds with the margin of the lower wetter ground, so it seems likely that no further occupation was sited to the west and south. It is possible that further occupation could be sited to the immediate north and east, although the proximity of the relatively steep slopes of Jump Hill would suggest that any such occupation would not be widespread or intense.

A much smaller cluster of pits of a similar type and date to those identified here was recorded at the north-eastern limit of the excavations at Wayside Farm (Valentin and Robinson 2002). This may suggest that such scattered and unfocussed settlement was characteristic of the locality in the Iron Age.

As has been suggested, the Roman trackway to the north of the Iron Age occupation may have had an Iron Age antecedent, which may have carried on over the south-east shoulder of Jump Hill. The record of ploughed-out barrows to the east of Brickley Lane suggests that the high ground to the east of the site was significant. Thus it is possible that the occupation revealed may represent the limit of western encroachment, along an existing trackway, of an upland settlement to the east.

Roman activity

No evidence was found to suggest a continuation of the occupation into the Roman period, although the trackway itself, and the small assemblage of Roman finds, clearly point to the continuing use of the area as a thoroughfare, perhaps for both civil and military use, although the lack of metalling suggests that it was never more than a modest local route. However, it is worth noting that a comparable ditched trackway of similar date ran east-west across the excavation area at Wayside Farm (Valentin and Robinson 2002). If the line of both trackways were extrapolated westwards they would appear likely to meet at a point within the area shown by the number of SMR entries to indicate fairly concentrated Roman activity, including settlement and burials. The evidence from both sites that the origins of the respective trackways may lie in the late Iron Age invites the suggestion that such an occupation focus may also have an Iron Age predecessor.

Saxon activity

Only two pits were dated to the Saxon period. The larger of the two features (pit 134) contained a moderately-sized collection of Saxon pottery, along with residual Roman pottery, a late Roman coin and a catapult bolt head of early Romano-British date. While this material presumably represents redeposited detritus lying in the vicinity of the apparently disused trackway, and could have found its way into the pit circumstantially, the possibility remains that it could have been deliberately curated. The second pit which cuts the northern ditch of the trackway was found to contain a sizeable sample of animal bone including a cattle skull (which was badly fragmented) and several cattle horn cores.

Although both these features are isolated, they do hint at Anglo-Saxon occupation, possibly to the north or north-east, on the shoulder of Jump Hill.

Area 2

Medieval activity

The features found within Area 2 consisted principally of three gullies (Figure 4), which are

interpreted as elements of a 10th-11th century field system. These gullies are overlain by a possible buried ploughsoil that is dated to the same period. The environmental evidence from the ploughsoil indicated the presence of large amounts of carbonised material, which included free threshing grains and fragments of rye. The charcoal residues present in the sample were mostly of alder and hazel. These layers may represent redeposited cereal processing debris (manuring?) or could be the result of stubble burning. Whether this activity relates to the known medieval settlement at Nursteed Farm some 300m to the east of the area of investigation (TVAS, 1999b), or to a closer farmstead, cannot be ascertained.

Area 4

Early Roman

Area 4 was found to contain linear features, interpreted as being part of a Romano-British field system (Figure 4). The excavation appears to have located the intersection of two frequently re-cut boundaries, apparently defining the corners of up to four fields. The nearby concurrent excavations at Wayside Farm by AC archaeology also found ditches, along with evidence of occupation and indications of a ritual focus (Valentin and Robinson 2002 [this volume]). While the Area 4 field boundaries could relate to the Wayside Farm focus, the lack of a common alignment among the linears should be noted. The ritual focus at Wayside Farm, and the lack of Roman settlement at Brickley Lane supports the possibility of a contemporary occupation to the west.

ARCHIVE

The archive has been deposited at Devizes Museum and a microfilm copy of the archive has been deposited with the National Monuments Record.

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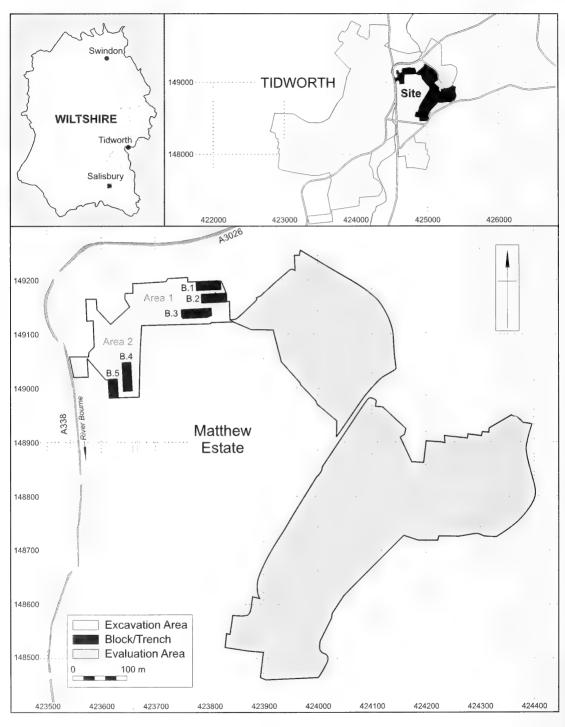


Fig. 1. Location map and trench plan

Excavation of Saxon pits at Tidworth, 1999 by David Godden, Sheila Hamilton-Dyer, Moira Laidlaw and Lorraine Mepham

Evaluation followed by excavation in advance of housing redevelopment at Tidworth in 1999 revealed pits of early and middle Saxon date containing pottery, animal bone, a dog skeleton, worked stone, bone and other artefacts. Although no structure was discovered the pits contained material of domestic origin, and provide evidence for a Saxon farmstead or other settlement nearby.

INTRODUCTION

A proposal to redevelop parts of the Matthew Housing Estate at Tidworth led to an archaeological evaluation (Wessex Archaeology 1999). This was followed by targeted excavation of five housing blocks and their gardens, undertaken by Wessex Archaeology in autumn 1999. Although no previous finds had been made of archaeological material in the 16.24 ha area of the existing estate, Tidworth lies within the archaeologically-rich landscape of Salisbury Plain and the possibility was recognised of uncovering significant remains.

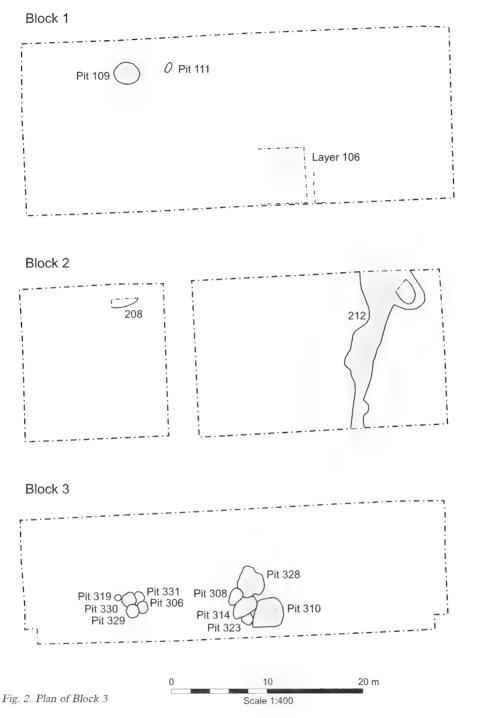
The site (centred on SU 240 490) is situated in the east of Tidworth (Figure 1) on a generally gentle west-facing slope falling from approximately 150m aOD down to the edge of the floodplain of the River Bourne at approximately 110m aOD. The underlying solid geology is Upper Chalk. The evaluation trenches showed evidence of colluviation into the valley bottom and many parts of the estate have been heavily landscaped in the past, resulting in some areas presenting the potential for buried archaeological material and other areas where chalk lies directly below the modern turf/topsoil.

The evaluation comprised 20 machine trenches and 31 hand-dug test-pits and identified a small number of features including two pits, one containing an articulated dog tail and the other sealed below colluvium, and a few undated, but possibly modern, stakeholes. Small quantities of Middle and Late Bronze Age, Roman and post-Roman pottery, ceramic building material, animal bone and worked flint were recovered. A buried soil was identified. It produced three sherds of organictempered early/middle Saxon pottery and sealed the pit containing the dog remains.

Two areas of archaeological potential were recognised and targeted for excavation. Area 1 comprised three housing blocks (Figure 1, Blocks 1-3) in the area containing the Saxon pottery and pit; and Area 2 comprised two housing blocks (Figure 1, Blocks 4 and 5) in the area where the second pit occurred and six sherds of a Middle Bronze Age Globular Urn had been recovered. The housing blocks were demolished to ground level before the start of the excavation leaving the concrete ground slabs and drains in situ. These were removed by machine as was the modern topsoil in the gardens down to the level where archaeological features showed. The area was then cleaned by hand, discrete features were half-sectioned and representative sections were excavated through linear features such as ditches.

AREA 1

An irregular linear feature (212) aligned roughly north to south at the eastern end of Block 2 in Area



1 (Figure 2) produced a handful of struck flints and three small abraded sherds of early-middle Saxon pottery in a sandy fabric (fabric Q400: see Table 1 for fabric descriptions). The feature varied considerably in width (1.0-2.5 m) and depth (0.151.0m) and appeared to include several tree-throw hollows. It is interpreted as a natural drainage channel resulting from the removal of an irregular line of trees/shrubs, presumably a former hedgeline.

Western pit group

The pit containing the articulated dog bones recorded in the evaluation proved to be one of a cluster of pits in the area of Block 3 (Figure 2). Two groups of intercutting pits lay approximately 10m apart. The western group consisted of four pits, 306, 329, 330 and 331, typically 2m in diameter and 0.5m deep with irregularly sloping sides and fairly flat bases and filled with brown clay loam. Pit 319, a more regular circular feature of 0.8m diameter and 0.4m depth, was just to the west of the group and did not intercut with them.

Pits 319 and 329 produced sherds of organictempered Saxon pottery (V400) characteristic of early to middle Saxon ceramic traditions. Organictempered fabrics are generally dated from the 5th-8th centuries, although indications that this tradition continued later into the middle Saxon period in Wiltshire are provided by small groups of sherds from the early 9th century metalworking site at Ramsbury (Haslam 1980) and from contexts pre-dating the Alfredian defences at Cricklade (Jope 1972).

Within this group, only Pit 319 produced animal bone (Table 2): the skeleton of a dog and a gnawed cattle metatarsus from the main fill (320), and a cattle jaw and a sheep metatarsal fragment from the upper fill. The dog skeleton was found lying on its right side, with the backbone round the outer curve of the pit and was almost complete though most of the toes were missing, possibly lost during excavation. The animal could be positively identified as male from the presence of a baculum (os penis). All of the bones had fused epiphyses and the teeth were very heavily worn, indeed the canines had filed sides where they had worn against each other and the lower left was reduced to a stump. Although several pathologies were present the spine and joints were not arthritic and this animal, though aged, would have still been quite mobile. The dog had suffered three broken ribs, probably from a fall or kick, that were almost healed at the time of death and the right tibia and corresponding calcaneum were markedly abnormal. It is not clear whether this was the result of disease or fracture, though there is some suggestion of a clean fracture, and the bone remodelling and extra foramina that were apparent could indicate infection, perhaps from a wound that occurred at the time of the break. Length measurements were taken on most of the bones and derived shoulder heights calculated. The heights are consistent and indicate an animal of about 0.57m at the shoulder. This height, and the

skull, indicate an animal of similar size and build to a modern Rottweiler with a broad, heavy built head and jaws, but with lighter limbs.

Five sheep-size fragments were also recovered among the dog bones, all 'digested' (i.e. with the sharp edges and destroyed surfaces characteristic of canid digestion). It is highly likely that these represent the gut contents of the dog.

Eastern pit group

The five pits, 308, 310, 314, 323 and 328 in the eastern group were more varied in size. Pits 308 and 323 were of similar size to those of the western group, whereas pits 310, 314 and 328 were typically 3-4m in diameter and 1m deep with steeply sloping or vertical sides and flat irregular bases. Pit 323 appeared to be the earliest on stratigraphic grounds and it produced the only other organic-tempered Saxon sherd from the site, together with a small group of animal bones (Table 2), including a pair of neonatal pig tibiae and a cattle-sized shaft fragment that had been dog-gnawed. Limestone-/ chalk-tempered Saxon pottery (C400, C401) was recovered from pits 310 and 314, including one rim (Figure 3, No. 1) and one rounded basal angle. These fabrics would suit a middle Saxon date (8th-10th century), although parallels within the county are extremely scarce, and calcareous fabrics are not unknown earlier: for example, a handful of chalktempered sherds are known from an early Saxon (5th-7th century) sunken-featured building at Collingbourne Ducis (Timby 2001). A vessel of comparable form in a calcareous fabric is known from a possible middle Saxon context at Market Lavington (Mepham forthcoming), and other examples come from Malmesbury (Mepham unpubl.) and West Kennet near Avebury (Wessex Archaeology 1997); none of these is securely dated.

Pit 310 was by far the most productive. It contained a quantity of stone fragments, mostly of lava quernstone of continental origin, and a fragment of a whetstone, together with two bone objects (a double-ended pin beater and a needle (Figure 3, Nos. 3, 4)), two copper alloy objects (a globular-headed pin (Figure 3, No. 2) and a piece of twisted wire) and two iron objects (an iron pin shank and an iron 'collar' or ferrule). The pin beater is similar to other 'cigar-shaped' beaters which are frequently found in Saxon contexts though they occur from the Romano-British to early medieval periods (MacGregor 1985, fig 101, no. 15). Also from pit 310 came ironworking debris comprising three fragments of possible hearth

Table 1: pottery totals by fabric

Fabric	Nos	Weight (g	;)			
Roman	1	1				
Saxon						
Q400	3	9				
C400	2	8				
C401	8	128				
V400	10	91				
Total	23	236				
Medieval						
E421	1	2				
E441	2	8				
E442	2	8				
Q401	1	4				
Total	6	22				
Post-medieval		6	20			
Overall Total		36	279			

key to fabric types:

Saxon

Sandy fabric

Q400 Hard, fine fabric containing moderate, wellsorted, rounded quartz <1mm.

Limestone/chalk-tempered fabric

- C400 Hard, fine fabric, soapy feel containing moderate, moderately-sorted, rounded limestone <3mm; rare rounded quartz <0.25mm
- C401 Hard, fine fabric, soapy feel containing common, moderately-sorted, sub-rounded limestone <4mm; sparse, rounded quartz <1mm; rare iron oxide.

Organic-tempered fabric

V400 Hard, fine fabric containing moderate to common organic temper; rare to moderate quartz <1mm.

Medieval: sandy fabric

- E421 Laverstock-type fineware; see Mepham 2000b for detailed description.
- E441 Kennet Valley chalk-tempered ware; see Mepham 2000a for detailed description.
- E442 Kennet Valley chalk-/flint-tempered ware; see Mepham 2000a for detailed description.
- Q401 Hard, moderately coarse fabric containing common, sub-rounded quartz 1mm; rare sub-angular quartz <3mm.

lining (11g), three of nodular iron ore (59g) and 22 of probable smithing slag (292g). Residual worked flints and some burnt flint were also present.

Pit 314 produced 36 animal bones. The cattle bones were mainly of the head and feet and included part of a large horn core, possibly from a castrate, and part of the jaw of an aged animal. Several bones showed butchery marks, mainly from a cleaver, and some had been gnawed. The sheep/goat fragments were almost all of foot bones, loose teeth and tibiae. These are all elements resistant to attrition but the material is quite well preserved and they are also from the waste areas of the carcase. The two tibiae had been chopped across the shaft and one of the metatarsi was split open.

Pit 310 offered the greatest variety of animal bone, as it did of finds (Table 2). Much of the material was in excellent condition though very fragmentary, with some bones having an ivoried appearance. In addition to the main domestic ungulates there were remains of goat, roe deer, dog, fowl, goose, and amphibians.

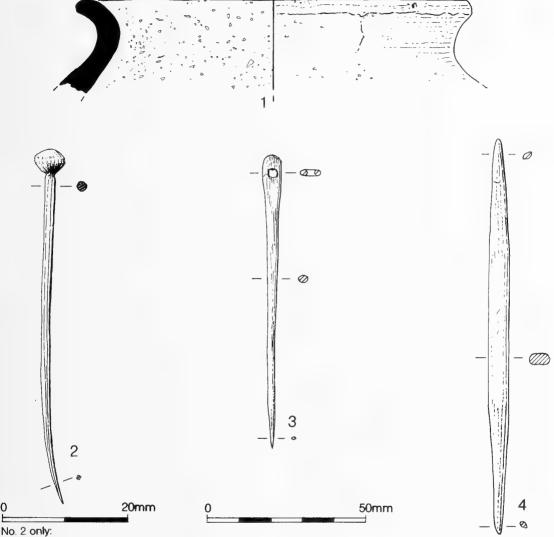
Most of the identified bones were of sheep/goat. Many of the unidentified fragments were of sheepsize, but goat was certainly represented by the partial horn core of a mature male. The horncore of a ram was also present. In this pit the major limb bones were represented as well as those of the head and feet. It is not clear whether the fragmentation was the result of deliberate butchery (or smashing for marrow extraction) or trampling, or both. It is also noted that a good many of the bones had evidence of dog gnawing. Overall the bones in this pit appear to have been discarded and covered after a relatively short time as there is little evidence of prolonged exposure to the elements.

Cattle remains also included chopped bucranial fragments of at least four animals but feet, limb bones and scapulae were also present. Three of the limb bones had been axially split. One bone, a metatarsus, was complete, offering an estimated withers height of 1.188m; it is probably from a cow. A prime buck roe deer was represented by a complete, but slightly abnormal, shed antler with the unusually thick first tine facing inwards rather than forwards. It is not worked and no other bones are present. A similar sole roe antler was found at Bedford (Maltby pers comm).

The identified bird bones are of fowl, representing at least two, probably female, birds. Goose is represented by a scapula and matching coracoid, the latter of which had been gnawed. The bite marks are small and may be from a cat.

Other features

About 20m further down the slope from the pit groups (in Block 2; Figure 2) were the remains of





another pit, 208, the upper part of which had been removed by house foundations. Its fill of mid-brown clay loam contained two further limestone/chalktempered Saxon sherds and two small chalktempered sherds. The latter fabric (E441) is comparable to examples known across west Berkshire and north-east Wiltshire from at least the early 11th century (Vince 1997, fabric group B; Mepham 2000a). Part of the side-plate from a composite bone comb was also recovered from this pit, together with some undiagnostic fragments of ceramic building material, 67 fragments of animal bone, burnt flint, and 14 fragments of stone including a tiny fragment of slate, one of greensand with one worked surface, and two joining fragments of oolitic limestone which appear to derive from an object with a circular perforation or depression, possibly a quern fragment.

The only other datable finds were two sherds of flint-tempered pottery (E442), dating from the 11th century or later (Vince 1997, fabric group A; Mepham 2000a), from a further small pit (109) in Block 1; a sherd of Laverstock-type fineware (E421) and one coarse sandy ware of unknown source (Q401), both of 13th-14th century date and six sherds of post-medieval (17th-18th century) pottery from layer 106, also in Block 1.

Feature	Con~ text	horse	cattle	sheep/ goat	pig	roe	cattle- size	sheep size	- dog	fowl	goose	bird frags	amph- ibian	Total	
310 311	1	_	3	-		_	_	_		_	_	-	_	4	
310 312	1	29	44	8	1	26	60	1		8	2	15	2	197	
314 315	-	5	7	-	-	1	2	-		-	-	-	-	15	
314 316	I	8	6	-	-	2	4	-		-	-	-	-	21	
319 320		1	-	-	-	-	5	1	(118)	-	-	-	6	13	(130)
319 5603	3 -	1	1	-	-	-	-	-		-	-	-	-	2	
323 324	-	-	2	3	-	1	1	-		-	-	-	-	7	
402 403	-	1	-	-	-	-	1	-		-	-	-	-	2	
$402 \ 404$	-	-	-	-		3	-	-		-	-	-	-	3	
402 405	-	1	1	-	-	-	-	-		-	-	-	-	2	
Tota perc		46 1.1	64 17.3	$11 \\ 24.1$	1 4.1	33 0.4	73 12.4	2 27. 4	(119) 0.8	8	2 3	15 0.8	8 5.6	266 3	(383)
perc	cm	1.1	17.5	24.1	· r , 1	0.4	12.4	21.4	0.0		5	0.0	5.0	5	
% cattle, sheep, pig		pig	38	52.9	9.1										121

Table 2: The analysed animal bones

(numbers in brackets refer to total number of fragments which comprise one individual dog)

AREA 2

The only certain archaeological feature recorded in Area 2 was a ditch (402) running north-west to south-east in the central part of Block 4, of which a 4m long section was excavated. This ditch was 2.7m wide and 1.2m deep with a steep, V-shaped profile. The brown clay loam fills contained 15 undiagnostic struck flints, fragments of burnt flint and seven fragments of animal bone. All of the bone was from domestic species and included a distal humerus fragment from a neonatal calf with dog gnaw marks. No further Bronze Age pottery was recovered from this area.

DISCUSSION

These two groups of Saxon pits are the first recorded from Tidworth. The original function of the pits is unclear though it is likely that, with the possible exception of pit 319, they were simple chalk quarries, the chalk most probably being used for building purposes. Although no settlement structures were recorded during the excavation the material incorporated into the pits is clearly of domestic origin including small quantities of pottery, stone, metalworking debris, butchered and fragmentary animal bone and some small metal and stone objects. Much of the bone appears to represent butchery waste deliberately dumped into the pits and quickly covered over.

The position of early-middle Saxon rural sites in river valleys in Wessex is well known (see, for instance Eagles 1994, 14-15, fig. 1.1; Hinton 1994; Cunliffe 1993, chapter 9) and early Saxon sites in the Bourne Valley are recorded at Collingbourne Ducis (settlement and cemetery: Pine 2001) and Winterbourne Gunner (cemetery: Musty and Stratton 1964) with further finds around Collingbourne Kingston (Eagles 1994) and a pagan Saxon burial reported from Perham Down to the east of Tidworth (VCH Wilts xv, 155).

The pottery evidence suggests that the settlement or farmstead from which this material derived persisted over several generations. Clearly at least two episodes of pit-digging are evident. The western group of pits, together with pit 329 in the eastern group, contained exclusively organictempered sherds of probable 5th-8th century date, while the remaining pits in the eastern group contained only limestone/chalk-tempered wares which would suit an 8th-10th century date. That the area was settled and farmed in the 11th century at least can be deduced from the fact that a large estate called Tidworth is recorded as having been fragmented in 1066 (VCH Hants iv, 391;VCHWilts xv, 153). By Domesday North Tidworth had land for 61/2 ploughteams with 63/4 hides in demesne and pastures measuring 12, 6, and 2 square furlongs (VCH Wilts xv, 159).

The date range for the pottery accords well with the evidence from Cadley Road, Collingbourne Ducis, c. 5km up the Bourne valley, where sandy and both organic- and chalk-tempered wares were also present, associated with ten sunken-featured buildings (SFBs) (Timby 2001). Radiocarbon dates for the SFBs provide a date range of AD 430-990 (Pine 2001). That site also produced a range of domestic items including bone pin beaters, combs and pins, together with clay spindlewhorls, and loomweights, hones and quernstones in various types of rock and some metalworking debris.

The animal bone, in particular that from Pit 310, has some interesting similarities with material from Collingbourne Ducis (Hamilton-Dyer 2001). The bone is in good condition and of a wide variety. Sheep/goat is unusually dominant, cattle numerically secondary, with pig very much a minor component. The bias in favour of sheep could be related to the local environment; the chalk slopes are ideal for sheep pasture, but pigs and cattle could also be easily accommodated in woods and pasture along the Bourne. In terms of meat in the diet, beef would probably have been at least as important as sheep; although more numerous these are quite small animals in comparison to cattle. However, the few ageable sheep jaws are of prime meat animals and compare favourably with Collingbourne Ducis.

Roe was clearly a frequently hunted animal in this area, as the bones from Collingbourne Ducis indicate, but why a single shed antler was discarded into Pit 310 is less clear. The occurrence of a similar find in Bedford may not be pure chance; they may have been deliberately collected, perhaps for folk medicine or other use that has left no mark, and then discarded.

The dog in Pit 319 lived to a good age. It was a strong and robust animal that had suffered and survived at least one, possibly two, traumatic injuries during its life. It was clearly held in some regard – whether as a hunting dog, a stock herding/guarding animal, a fighting/baiting dog or simply as a pet – being deliberately buried in one of the quarry pits rather than left for scavengers.

Overall, the excavation provides only a fragmentary glimpse of what is presumably much more extensive evidence for a Saxon farmstead or settlement in Tidworth. The two small groups of pits have together provided a small assemblage of material that, although limited in range and quantity, indicates at least two episodes of activity and adds significantly to a growing body of evidence for the location and economic basis of early to middle Saxon settlement in the Bourne Valley.

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Excavations at the Beckhampton Enclosure, Avenue and Cove, Avebury: an interim report on the 2000 season

by Mark Gillings¹, Joshua Pollard² and David Wheatley³

Following the discovery in 1999 of an unsuspected Neolithic enclosure and the line of the putative Beckhampton Avenue, excavations undertaken in 2000 sought to investigate these features further and also shed light upon William Stukeley's so-called Beckhampton 'Cove'. Using a combination of surviving features and local accounts of recent stone destruction episodes, Stukeley had suggested that an open box-like setting of huge sarsen stones (similar in form to the cove within the northern inner circle of Avebury) had stood mid-way along the length of the Beckhampton Avenue. Excavations confirmed not only the existence of the Cove, but have served to shed important light upon the precise form and phasing of this monumental feature.

BACKGROUND TO THE PROJECT AND THE 1999 EXCAVATIONS

Excavations undertaken in 1999 at Beckhampton, to the west of Avebury, Wiltshire, led to the discovery of the remains of a second megalithic avenue leading from the western entrance of the henge monument, and an unusual late Neolithic earthwork enclosure. The existence of this second avenue (the so-called Beckhampton Avenue) had been mooted by the 18th-century antiquary William Stukeley (Stukeley 1743), though severe doubts about its existence had subsequently been raised. Excavation revealed a total of six stone settings along the line of the Avenue. These were defined by buried stones and post-medieval stone destruction pits, together with original stone sockets. First spotted from the air in 1997, the enclosure is oval and up to 140m across. Consisting of a shallow, semi-segmented ditch broken by a wide eastern entrance, it pre-dates the avenue (Gillings et al. 2000a; 2000b).

THE 2000 EXCAVATIONS

Further excavations were undertaken over a four week period during late July and August 2000. The principal aims of the 2000 season were threefold: to investigate more of the later Neolithic enclosure identified and sampled during 1999; to establish the course and character of the Beckhampton Avenue as it continued to the south-west of the area investigated in 1999; and to ground-truth Stukeley's observations of the Beckhampton 'Cove', a setting of three massive sarsens midway along the course of his Avenue, of which one solitary stone ('Adam') remains. The work was also directed towards recovering additional environmental and chronological detail that would place the monument complex within a broader regional framework of Neolithic developments (cf. Whittle 1993). As with the 1999 excavations, the work was guided by a detailed pre-excavation geophysical survey undertaken by the Ancient Monuments Laboratory of English Heritage.

¹ School of Archaeological Studies, University of Leicester, Leicester, LE1 7RH ² Dept. of Humanities & Science (Archaeology), University of Wales College Newport, PO Box 179, Newport, NP18 3YG ³ Dept. of Archaeology, University of Southampton, Southampton, SO17 1BJ

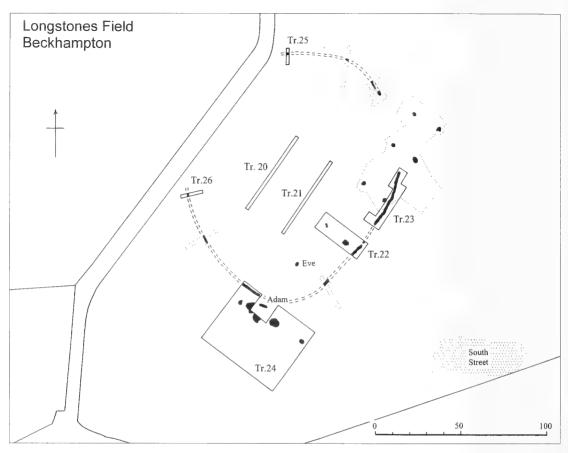


Fig. 1. Longstones field, Beckhampton: plan of the 2000 excavations. Trenches shown in stipple outline relate to the 1999 season.

Seven trenches were opened by machine: two within the interior of the enclosure (Trenches 20 and 21); two across the northern part of the enclosure ditch circuit (25 and 26); and three large areas along the line of the Avenue and southern ditch circuit (22 and 23), including the area around and to the south-west of the Cove (24) (Figure 1). Though the enclosure ditch was exposed in Trenches 25 and 26, it was not dug. With the exception of traces of medieval and later cultivation, no features were observed within Trenches 20 and 21, nor were any lithic artefacts recovered from the ploughsoil overlying these trenches.

The Enclosure

The main excavation of the enclosure ditch took place in Trench 23. Originally intended as a 5 x 10m area centred upon the predicted position of the south terminal flanking the main enclosure

entrance, the trench was considerably extended following the realisation that the ditch continued for a further 30m to the east. In fact, the ditch extended into the area of Trench 10 of 1999, its course not being recognised at the time due to a combination of its very chalky upper fill and the extremely dry conditions of that year. In total, 35m of the ditch (an entire segment) was exposed and 26m of its length excavated.

The cut of the ditch was noticeably irregular. Though gently curving in plan, the segment appears to have been made up of three conjoined lengths of straight ditch, each length itself being formed through the digging of inter-cutting elongated pits. It varied between 0.7 to 0.85m deep and 1.5 to 2m wide with sides moderately steep to near vertical, and the base flat (Figure 2).

The sequence of fills was identical to those encountered in the ditch sections dug in 1999. There was a primary fill of loose chalk rubble,



Fig. 2. View from the terminal south-west along the length of the enclosure ditch excavated in Trench 23.

succeeded in places by a thick, compacted secondary silt. Some sections of the ditch displayed bands of finer material interlaced with coarser rubble on the western (inner) side of the feature, possibly indicating short periods of stabilization or preserved annual banding, as noted at the Overton Down experimental earthwork (Bell *et al.* 1996). Above this was a well developed soil horizon, thickest in the centre and only occasionally interrupted. The upper fill was of compact chalk rubble within a clay loam. Some of the chalk fragments were large and irregular and lay at a variety of angles indicating rapid backfilling.

A number of discrete deposits of brown loam, some with charcoal or associated finds of animal bone, pottery or flint, were discovered on the base of the ditch. In the northern terminal was a fairly extensive lens of loam and charcoal associated with a spread of bone that included a cattle mandible, rib and vertebra, a piece of burned sarsen and three small sherds of highly decorated Grooved Ware. Nearby was a deposit comprising three scapula (of pig or ovicaprid), an antler, a flint blade and horncore. Further deposits of 'fresh' bone occurred throughout the length of the exposed ditch (Figure 3).

The same pattern of fills and overall morphology was noted in the segments of enclosure ditch excavated in trenches 22 and 24. Here narrow, undug causeways were recorded between pit segments, and in each case finds of antler were made at the base of the final backfill material, most likely placed deposits.

The Avenue

Trench 22 was located to investigate the intervening pair of Avenue stone holes between those excavated in 1999 (Trench 10) and the one remaining standing Avenue stone, 'Eve'. This corresponded to a pair of stones that had been marked by Stukeley upon his 1724 drawing of the Cove as 'thrown down and half buryed' (Ucko *et al.* 1991, pl. 60). Although no geophysical anomalies could be identified in this area on the pre-excavation survey, upon removal of

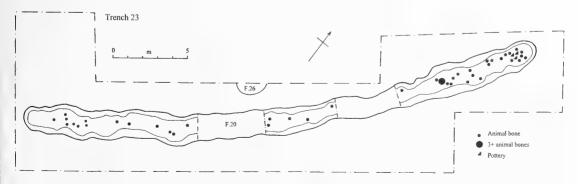


Fig. 3. The enclosure ditch and primary deposits in Trench 23.

the topsoil the original positions of the Avenue stone pair were clearly indicated by two post-medieval stone destruction pits, F.61 (northern) and 62 (southern). Oval, sub-rectangular, and somewhat irregular in plan and profile, both were similar in form to those excavated to the east in 1999. F.61 was relatively minuscule, only 2.0 x 1.5m across and 0.2m deep, the pit taking the form of a shallow sub-circular dish (Figure 4). It contained a burning deposit comprising a layer of carbonised straw and sarsen flakes.

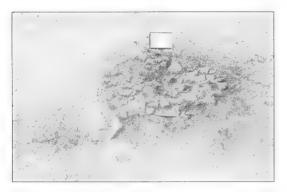


Fig. 4. Spread of burnt sarsen and displaced packing stones in stone destruction pit F.61.

F.62 was altogether more substantial, up to 4.0m in diameter. The base was stepped, being deepest on the south, where a distinct subrectangular area could be identified cut to a depth of 0.6m below the surface of the chalk. This could reflect an earlier episode of deliberate stone burial ('half buryed') prior to the subsequent burning and destruction. A thick layer of stone destruction debris lay across the base of this zone, in turn sealed by ploughsoil.

In each instance traces of the original stone sockets survived. In the case of the southernmost setting, the socket (F. 96) had been severely truncated by the digging of the sub-rectangular burial/destruction pit on the north-western side of the stone, cutting into its northern side and base. To the north the shallow destruction pit had been cut directly adjacent to the socket (F.82), which was largely intact. The suggestion here is that the stone fell or had been toppled at some point prior to the destruction episode. In each case the maximum diameter of the socket was in the order of 1.7m and depths of 0.7m (F.96) and 0.5m (F.82). Portions of compact chalk rubble survived in both, along with in situ and displaced sarsen packing stones. With the exception of small quantities of lithic debitage, no artefactual material was present in their fills.

Although a considerable area had been excavated to the southwest of the Cove (T.24), there was no evidence for any continuation of the Beckhampton Avenue, suggesting either a termination or a break in the regular spacing of stone pairs at this point (see below).

The Cove and original Avenue terminal

An area of just over 1850m² was stripped around and to the west of the one remaining Cove stone, 'Adam', in order to explore the features of the Cove and assess the possibility of a continuation of the Avenue to the south-west. Geophysical survey had identified three substantial anomalies adjacent to 'Adam'. Upon removal of the ploughsoil, these were revealed as sizeable stone destruction pits (F.71, 52 and 53) marking the locations of stones recorded by Stukeley in 1722-4 as recently removed (F.52 and 53) and lying recumbent (F.71). Along with 'Adam', the stones that originally stood here formed a rectilinear setting c.15 x 10m, aligned north-west - south-east, with splayed sides, 'opening' to the south-east (Figure 5). The size of the destruction pits and remaining portions of the original stone sockets ((F.50/72 on the north-west, F.81 on the south-west and F.87 on the south-east) indicate the former existence of sarsen blocks equivalent in size to 'Adam' (i.e. standing 3-4m above ground and, accepting Cunnington's calculation of the weight of Adam following the re-erection of the stone in 1912, weighing more than 60 tons (Cunnington 1913: 6)).

In each instance destruction pits had extensively disturbed, though not totally eradicated, the original stone sockets. On the northern side, little remained of socket F.50/72, most of the feature having been removed by the destruction pit F.71. This may anyway have been extensively disturbed when the stone originally fell. Only the extreme ends of the pit remained, but these suggest the socket was c.3.5m in length and up to 1.0m deep. In the disturbed fill were sherds of medieval pottery and abundant quantities of flint debitage. A large weathering cone had formed around the socket after the stone had fallen, and had partially silted by the time the destruction pit was dug.

F87 survived on the north-western edge of destruction pit F.53, much of it having been truncated by the latter which had been dug directly

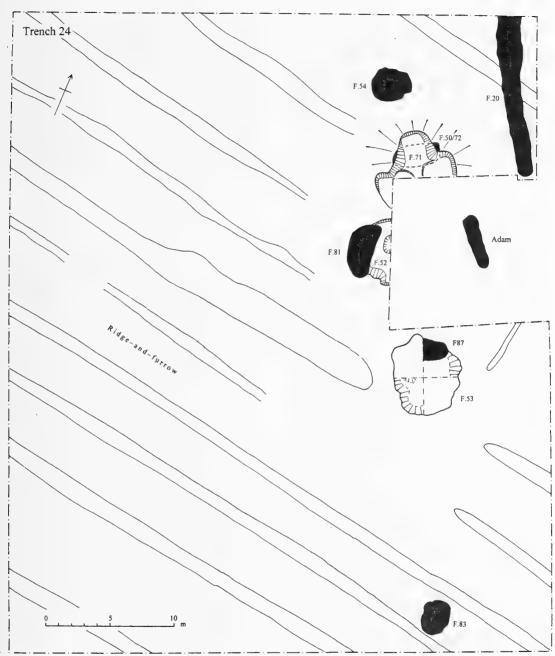


Fig. 5. Principal features in Trench 24. 'Adam', stone sockets and a section

up to the base of the stone on its southern side. Form and dimensions are difficult to gauge, especially since only half of the feature was excavated, but the socket would appear to have been oval, set east-west, around 3.0m in length and 0.8m deep. The base was clearly compacted by the weight of the stone. The socket of the western side stone of the Cove (the pair to 'Adam'), F.81, remained reasonably intact although extensive animal burrowing had destroyed much of the upper profile. Forming a flattened oval, 4.5 x 2.0m and 1.0m deep, it was well cut, with steep sides on all but the west, and a stepped base (caused by compression from the

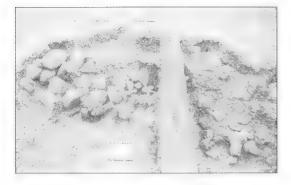


Fig. 6. Spread of sarsen packing boulders in F.81.

stone in the centre of the socket). A line of antifriction stake holes ran along the eastern edge of the pit, indicating that the stone had been set into the socket from the south-west. The fill was particularly compact towards the centre where the stone had been bedded, and contained deposits of freshly flaked flint and animal bone. Around 80 small sarsen packing boulders were present, concentrated mainly to the south (Figure 6). The configuration of the packing boulders and the pattern of compression suggest that the stone had been set on one corner (if originally of squared form like 'Adam', standing above ground as a lozenge).

All three stones were destroyed in the early 18th century. F.52 and 53 were fairly typical post-medieval destruction pits (though considerably larger than those excavated to the east). They were roughly oval in shape, up to 6.0m across and 0.8m deep, somewhat irregular and expediently dug. Their lower fills contained spreads of charcoal-rich soil, burnt straw and fragmented and burnt sarsen. Such was the intensity of burning within F.52 that some of the sarsen had been reddened and reduced to sand.

Several thousand pieces of worked flint were recovered from both of these features along with small quantities of bone. From the re-deposited chalk and soil fill of F.52 came, somewhat unexpectedly, numerous fragments of iron, including a small Anglo-Saxon spearhead, pieces of shield fitting and a part of a knife blade. These are almost certainly from a disturbed pagan Saxon inhumation burial or a weapon deposit, probably of 7th-century date (Andrew Reynolds pers comm.).

F.71 was the largest of the destruction pits so far encountered, and morphologically unusual. This was a multi-lobate pit, $6.5 \ge 6.0+m$ across, with very steep to vertical sides and a flat base set on several levels. The portion of the pit excavated comprised two deep shafts on the north-east and

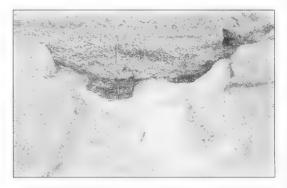


Fig. 7. The 'furnace' (F.71) originally quarried into the chalk beneath the recumbent back-stone of the Cove.

south-west, c.3.0m across and over 2.0m deep, separated by a narrow causeway (Figure 7). On the north side a 1.0m deep extension cut through the original stone socket. The shafts appear to have been dug to create sufficient working space to enable a horizontal 'gallery' to be excavated through the chalk beneath the stone, leaving the recumbent sarsen supported at the corners by pillars of undug chalk. Once a sufficient void had been created the shafts were then deliberately backfilled with chalk rubble up to the level of the floor of the north extension, creating a level surface across the whole of the pit. A thick layer of charcoal-rich soil with sarsen fragments lay over this, the product of firesetting (from which most of the sarsen fragments had been raked out). The pit had then been backfilled to the surface with chalk rubble and soil. Finds from the backfill of the destruction pit included several sherds of worn samian and Romano-British pottery.

This unusual pit represents the technological response to dealing with a large recumbent stone. Too bulky to lever up and fire-set in the conventional manner, it was necessary to sink shafts around the stone, then tunnel underneath, creating a void in which the fire could be set – in effect constructing a furnace. The scale of the process shows it was both well-organised and well-planned, involving a considerable expenditure of labour. With the stone left supported on spurs of un-dug chalk, it must also have represented a considerable risk to those taking part in the operation.

The Beacock Holes

Two stone holes were unexpectedly revealed on the north-eastern side of the area, one (F.54) just to the north-west of F.71, and the second (F.83) 15m

to the south-east of F.53 (Figure 5). It is argued that these, along with F.87, form part of an original terminal to the Avenue. They are set 40m apart on a line that bisects F.87 at its mid point. They were termed 'Beacock Holes' after the student excavator of the first of these features.

Both features were distinct from the other excavated stone sockets by virtue of their pure chalk rubble fills, making them difficult to detect on the surface (F.83 only appearing after a period of weathering). Both were very similar in morphology and fill; c.3.0 x 2.0m in extent and 0.5-0.7m deep, with moderately steep sides and flattish bases. Deeper, sloping linear recesses on the south sides of both bases are possibly leverage points to facilitate the erection or removal of the stones, and slight hollows along the northern edge of F.54 could represent settings for anti-friction stakes. The base of F.54, and to a lesser extent that of F.83, were extremely compacted and smoothed, consistent with compression from having held large stones. However, the stones could not have stood long, and seem to have been deliberately removed soon after erection, the pits then being backfilled with clean chalk rubble.

Stakeholes

Once the surface of the chalk had had time to weather, numerous stakeholes were observed, particularly in the northern half of the area. Where possible, these were base-planned, thorough investigation being confined to a 10 x 10m area in the west corner of the trench. Over 200 stakeholes were revealed in this one area, a number being sealed by the fill of the ridge-and-furrow, indicating a pre-late medieval, and most probably prehistoric, date for most (cf. similar concentrations of such on later Neolithic sites at Coneybury (Richards 1990, 138) and Down Farm (Green 2000, 73)). Though no discernible structural patterns could be recognised within these, their distribution is nonrandom and several sets appear to describe short arcs. They could easily represent a palimpsest of temporary dwellings, fence lines and compounds.

DISCUSSION

The enclosure

Sufficient of the enclosure has now been excavated to be certain of its character. In all of the sections

examined the ditch is narrow, shallow, flat-bottomed and dug as a series of intersecting pits. Its segmented form was perfectly displayed in the long lengths of ditch exposed during the 2000 season. Small causeways, some too narrow to have acted as points of entry into the monument, were discovered in three locations (Trenches 22, 23 and 24). With minor variations, the sequence of filling is identical in all the excavated sections: primary chalk rubble, followed by the formation of a thin secondary silt and intermittent soil, and then a uniform backfill deposit of chalk rubble (almost certainly redeposited bank material pushed from the inner side). Whilst localised scoops may have been dug to receive 'decommissioning' deposits prior to the episode of levelling, there is no evidence for recutting. Preliminary analysis of molluscan samples taken in 1999 suggests conditions of grazed grassland throughout the life of the enclosure. A certain amount of depositional activity followed immediately on from the digging of the ditch, involving placed spreads of butchered animal bone (cattle and pig), soil, and small amounts of Grooved Ware and worked flint. This is particularly 'event like' (limited to a specific horizon) and largely limited to the area closest to the main eastern entrance. Despite investigation, no indications have been found of contemporary activity within the interior of the enclosure - it is remarkably 'clean'.

Radiocarbon determinations obtained on bone recovered during the 1999 excavations suggest the enclosure ditch was dug, began to silt and was finally backfilled and levelled within a short period of time. The span of dates runs between 2885-2200 cal BC, though Bayesian calibration of these narrows the range to 2650/2500-2510/2300 cal BC. These mid-3rd millennium BC dates are supported by sherds of Grooved Ware since recovered from the base of the ditch.

There is no doubt that this is an unusual monument, and one that was rather 'out of time'. Its form is highly reminiscent of 4th millennium BC causewayed enclosures, though it also has affinities (in terms of scale and restricted access, though not geometric regularity) with the earlier Stonehenge 1 (Cleal *et al.* 1995) and Flagstones enclosures (Smith *et al.* 1997). Yet, it must be more or less contemporary with the Avebury henge (Pitts and Whittle 1992). Its anachronistic form may have been quite deliberate, making direct reference to earlier traditions, and thus standing to some degree in contrast or opposition to the novel values and bodies of sacred knowledge presented by a monument like Avebury. This said, the enclosure might well have embodied subtly different meanings and values from those found in earlier monuments to which it made reference. Activity at Windmill Hill, close to the north, was seemingly bound up with ideas of community (real and idealised), gathering and participation, with feasting, deposition and a host of other activities taking place (Whittle *et al.* 1999). There is little sense of this at the Beckhampton enclosure, its diminutive size and the absence of subsequent elaboration perhaps even reflecting difficulties in mobilising participation in the project.

The Avenue and Cove

Nearly 200m of the Avenue have now been investigated, providing a wealth of information on both its original form and its later history of piecemeal destruction. Unfortunately, there is still no secure dating evidence from the sockets; though we would envisage a sequence that sees the Avenue following the enclosure, with the levelling of the latter (around 2500-2300 cal BC) happening at a point when the megalithic settings were erected. The relationship of the Avenue to the enclosure represents something of a paradox: its siting was deliberately intended to take in the enclosure, but required the levelling of the earlier monument as part of the process. It is tempting to see this as an overtly ideological act, removing the enclosure and confining it to (a particular kind of) memory.

The full course of the Avenue remains to be established, particularly beyond the Cove. It is significant that no further Avenue stones were detected to the south-west of the Cove in Trench 24, assuming that the longitudinal interval between stone pairs remained constant, implying that something unexpected is happening at this point. Whilst the Cove could represent the end of the Avenue, further pairs of stones were recorded by Stukeley running to the south-west, at least as far as the present Beckhampton roundabout (Stukeley 1743), and a sarsen burial pit was excavated on this line at the side of the Calne road by the Vatchers in the early 1970s (information from Alexander Keiller Museum, Avebury). Assuming this westerly stretch does exist, and given the 'broken' interval and a slight change in alignment, it could very well be a later addition. The idea of phasing/stages to the Avenue's construction, with the original terminal immediately to the south-west of the enclosure, is given support by the sequence and arrangement of stone settings around the Cove.

The excavation of the Cove vindicates Stukeley's observations regarding the format of the setting, though it is clear that his southern-most stone (represented by socket F.87) was not as he thought part of the southern line of the Avenue, but in fact set within its centre. This shows that the Cove was not an open-box arrangement of three stones, as appears to be the case with the supposedly analogous setting within the Northern Inner Circle at Avebury (Smith 1965), but a 'closed' rectilinear setting, still reasonably permeable, widening to the south-east.

This was evidently not a single-phase setting. Two stone holes were unexpectedly revealed to the northwest and southeast of the Cove-the 'Beacock Holes' F.54 and 83. These held stones apparently removed soon after their setting; they were not subject to later burial or breakage like the others, and the sockets were carefully backfilled with clean chalk rubble. Judging by the size of the sockets these must have held substantial megaliths, perhaps in the order of 3-4m high. The working hypothesis is that they, along with the stone in F.87 (which lies at the mid-point on a line between the two), formed a first phase setting, 40m across, forming the original terminal of the Avenue (Figure 8). When the Avenue was extended to the south-west the two outlying stones were removed, and the Cove created on a slightly different alignment, utilising the existing (and very substantial) megalith in F.87. The dimensions of this complex are revealing. The 40m span of the first phase setting is equivalent to that of the outer stone circle of the Sanctuary at the end of the corresponding West Kennet Avenue (Pollard 1992). The elements of the Cove itself are seemingly set out in units equivalent to c.2.5 and 5m (though given the bulky nature of the stones, none of these measurements can have been retained with any precision during construction) - thus the width of the setting ranges from c.7.5-10m, and its length is just over 15m. The geometric regularity of the setting again recalls that of the Sanctuary and many other major late Neolithic timber and stone monuments (cf. Powell 1994).

Burl (2000, 31-3) has suggested that this and other coves were intermediary megalithic forms between earlier Neolithic chambered tombs and later stone circles, in as much as they mimic the closed format of simple megalithic chambers. The apparent late date of that at Beckhampton takes it out of such an evolutionary sequence, though the location of the setting within close proximity to two earthen long mounds lends support to Burl's

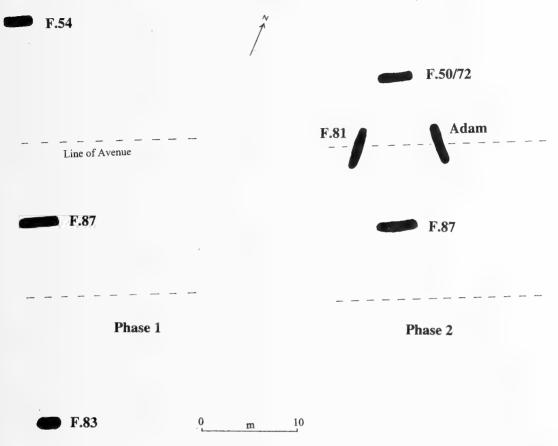


Fig. 8. The original terminal of the Beckhampton Avenue? A reconstruction of the two phases of stone settings excavated in Trench 24.

arguments. An alternative is to see the construction of the Cove as an act that referenced and commemorated the earlier enclosure. Both monuments are characterised by an enclosed yet permeable architecture; the experience of standing inside the open form of the Cove also being quite different from that of the dark, restricted space of a chamber in a megalithic tomb. Almost invariably associated with henge monuments and stone circles (Burl 2000, 31), these enigmatic settings may in fact have carried diverse meanings and bodies of symbolism.

The Cove has a complex history. It became the focus for a variety of later activities: a Beakerassociated burial was discovered alongside Adam when that stone was re-erected in 1912 (Cunnington 1913); sherds of Roman pottery were found in the fills of the destruction pits; and the iron spearhead and other metalwork recovered from the fill of F.52 most likely relates to a pagan Saxon

burial or weapon deposit. Such later activity could be seen in the context of attempts at appropriating something of the myths or histories that later attached themselves to the Cove. The setting clearly suffered badly at the hands of the 18th century stone-breakers. It is recorded by Stukeley that some of the stone was carted away to build part of the present Waggon and Horses public house on the Calne-Marlborough road (Burl 1979, 51). The scale of the destruction work inspires respect, particularly the hazardous operation of undermining and fire-setting the northern Cove stone. Whilst driven to some extent by monetary gain, there appears a zealousness to these operations that implies a desire on the part of certain early 18thcentury farmers to rid the Avebury landscape of a perceived 'pagan' past.

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A Brief History of Dauntsey's School Natural History Society (fl.1933–1963) by Michael Darby

The story of Dauntsey's School Natural History Society is traced from its origin in the early 1930s to its dissolution in the 1960s through a recently discovered archive of material in WANHS library, supported by additional information from two of the early members. Brief accounts are given of the main protagonists including Ian Hamilton, the Biology master responsible for promoting and developing the Society, and the young Desmond Morris who was an early member. Particular attention is paid to the Society's 'publications' (which contain a wealth of information about the fauna and flora of the West Lavington area), and a list of these is appended.

The discovery of an uncatalogued archive (mainly typescripts and card indices) in WANHS library, presented by Dauntsey's in c.1989, provides an opportunity not only to document the complex history of the school's Natural History Society, but also to place on record several sources of information which are not well known to Wiltshire's naturalists.

It is important to make clear at the outset that Dauntsey's was a very different organisation from the well-known Society at nearby Marlborough College. The Natural History Society there was much older and wealthier, and although Dauntsey's had its own premises and collections, these were not on the scale of the Marlborough museum. Furthermore, fewer professional staff and local enthusiasts were available to provide support, and it did not attract the same number of well-known personalities to lecture. The scope of the Dauntsey's Society, consequently, was much narrower, and the image it presents to the contemporary historian, more amateur.

But perhaps the most important reason why the Dauntsey's Society is not better known is because, unlike Marlborough, it could not afford to produce printed and bound reports and papers for national distribution (surely a major incentive to visiting speakers whose talks were often reprinted in full). Instead, what the Society described as 'publications' were typed sheets which were copied – a laborious task involving the use of stencils – in small numbers before being stapled. Most were either sold, or given away, to staff and pupils. Because many were produced during, or soon after, the War, paper quality was poor and stocks limited. (In this article publication is used in the sense meant by the school.)

In spite of these limitations, Dauntsey's specific concentration on the fauna and flora within a three mile radius (later increased to five miles) of the school, provided the opportunity for a more comprehensive study than that attempted at Marlborough. Dauntsey's aim was to catalogue and record everything living. Although this ambitious goal proved far beyond the knowledge and abilities of those involved in many areas, considerable achievements were made in others of which the members could feel justifiably proud.

Dauntsey's School Natural History Society, often referred to as the School House Natural History Society (see below), came into being in the early 1930s shortly after a particularly dynamic phase in the School's history. The school, which had been founded in 1553 had recently formalised the process of conversion from Agricultural College to Public School begun in 1895; the Manor House at Littleton Panell (a former home of the Pleydell-Bouverie family) had been purchased as a base for the younger boys; and the new Farmer biological laboratories had just opened.

It is possible that a more informal society may have existed earlier. The first number of the Agricultural College Magazine (a precursor of the Dauntseian), which appeared in 1904, makes reference to the existence of a museum, and states that 'there has been for several years past more or less of an entomology collection in the school, but this fascinating branch of natural history has scarcely received its full share of attention from the Dauntsey naturalists'. Four years later the museum was, on speech day at least, 'but little patronised', and in entomology 'little has been done and a falling off in popularity has been noticeable'. By 1909 the museum ceased to be mentioned at all.

These tantalising references to displays and collections suggest that use of the museum may have been optional but, given the importance of the contents to the teaching of the curriculum, that seems unlikely. Entomology formed a formal part of the Agriculture Course and the *Magazine* mentions that the museum display included an 'excellent collection of Agricultural insect pests preserved in spirit'.

According to *The School House Natural History Society*, 1948, there was also 'a vigorous Field Club' prior to 1930 of which the Headmaster, G.W.Olive, was President. With the opening of the Farmer Laboratory however, the Presidency passed to the new Head of Biology, Ian Hamilton. Spurred on by C.R.Rivers-Moore, one of the boys, Hamilton quickly converted the Club into a Natural History Society, making P.C.Savill the first President, J.R.Baldwin, Vice President, and Rivers-Moore Secretary. No doubt Olive, who was himself a biologist, encouraged these developments.



Fig.1. Building the Vivarium, Summer 1933.



Fig.2. The Vivarium in 1948 after Desmond Morris had built pits and tunnels in it.

The first references to the new Society appear in the Dauntseian in July 1933 and July 1934. They mention the building of a vivarium (Figs.1,2) and that the members had made an outing to study the marine fauna of Poole and Sandbanks. Not surprisingly the ingredients of sand, sea and reptiles proved popular, and by the next term the number of boys wanting to join was so great it became necessary to form a junior section for Manor boys. A second new master appointed at this time was A. Darlington, an ornithologist. It was perhaps to be expected, therefore, that a Bird Club would quickly establish itself as another section of the new Society. By 1937 Darlington appears to have left, and his replacement as head of the Club, H.J.Moore, put matters on a more formal footing by establishing it in its own right as the Bird Trust. With more than thirty members in some years, the Trust became one of the school's most active and successful groups. Apart from keeping local records, the members undertook trapping (a ringed bird from Belgium was one of the first twenty taken) and outof-county field trips. They also started a ringing programme with help from the British Trust for Ornithology, and were delighted when one of the first starlings ringed was recorded from the Baltic coast of Germany, wartime conditions notwithstanding! After Moore moved to Clayesmore several joint meetings were held with that school.

A second independent group which also split off from the Natural History Society at this time was the Meteorological Society. It was formed by Amyan MacFadyen, a pupil who had joined the school in 1933 and a master B.W.H.Coulson both of whom were keen to know what effect weather had on birds. Appropriately, the section's first title was the Phenological Society before being changed in 1936. Equipment was purchased and the site was early recognised by the Air Ministry as a Recording Station. Local forecasts were posted on the school notice board daily and readings reported to the Ministry every month. Five, and later nine different sets of records were kept including the dates of arrival and departure of bird migrants, the dates of first appearance of certain butterflies, moths and other insects, and the dates when certain plants first flowered and certain trees first came into leaf. Both the Bird Trust and the Meteorological Society published annual reports.

In October 1938 the Dauntseian recorded that: 'Last term a new society was started for members of the School House who were interested in Natural history. Activity was limited to the Dew Pond Survey shown on Speech Day and Spiders. This term more dew ponds are being done and a survey of the Manor Stream. The production of a magazine is also being considered.' In fact, this was simply the earlier Society under a new name, the change being prompted, apparently, by the fact that the efficient Manor House Boys, being geographically separate from the main school, had formed themselves into the Manor House Natural History Society and produced their own magazine in 1936 and 1937. With the foundation of the School House Society, the Manor House boys opted to collaborate with the members on the publication of a joint magazine in 1938. Titled the NHS Ark, it appeared in November, with a Supplement in January 1939. The editorial states: 'Both sides have generously given way to the other, and we have tried to arrange our material from each society on alternate pages. The truth of the matter is, that there are only two Societies as far as dormitory accommodation goes, because during the last two terms, members of the one Society have visited and given papers to the other'.

The NHS Ark, written on the one hand by boys of various ages and, on the other, by masters including G.W.Olive, understandably included a diverse mix of material. The 'Notes' of the Manor House Society are interesting for explaining the constitution and that the Society not only had its own room, of which simple sketches are reproduced, but also a tank in the Manor yard stocked with fish and insects. Given the age of the members, activities involved simple tasks such as weighing mice on a regular basis and measuring the rate of growth of trees in the Manor grounds, as well as field trips. Objects collected such as nests, fossils, and tree bark were brought in and displayed, and records kept.

Articles in the NHS Ark by members of the

School House Society included a list of local Lepidoptera giving the times of emergence and disappearance of more than fifty species during 1938; accounts of the Vivarium and the Aquarium (incorporated into the new Farmer Laboratory and including both fresh water and sea water tanks); descriptions of the biology of several individual species including trout, water boatmen, etc.; and two pieces devoted to dew ponds.

It was the study of the dew ponds, the editor explained, which had been the motivating force behind the society's establishment: 'One day in October 1937, a few keen biologists made the momentous decision to carry out a dew pond survey throughout the following year. The following summer the flame of the 'School House Natural History Society' flared up out of the spark.'

One of the dew pond articles included a map showing that 26 ponds had been located in the area between West Lavington, Imber and Tilshead, and explained that one (no 24, near Tilshead) had been mapped and photographed regularly from October 1937, and weekly samples taken of the mud in the bottom for examination in the laboratory. This dew pond research, together with other surveys and observations both earlier and later, subsequently formed the material upon which a Report on Investigations carried out on the Ecology of Dew Ponds by A.Macfadyen, E.D.Le Cren, A.Gillespie, H.J.Moore, and others. 1930-1940, was compiled, under the editorship of E.D.Le Cren, in July 1940. Although often referred to as one of the Society's publications (with the title The Dew Pond Survey) it does not appear to have been reproduced and distributed, so that the typescript, now in the possession of A.Macfadyen, may be the only copy. (Figs. 3,4)



Fig.3. Making a transect of Dew Pond 1, Summer 1937.



Fig.4. Amyan Macfadyen and David Le Cren examining Dew Pond 2, October, 1938.

While the dew ponds may have been the direct cause of the revitalisation of interest in natural history in the school, it is clear that the underlying motivation continued to come from Ian Hamilton (nicknamed by members of the Society 'Buttercup'). It was he who acted as the NHS Ark's editor, in addition to writing many of the articles himself. He also contributed nine pages on spiders, his special interest, illustrated with his own drawings and including a brief list of local species, to the Ark Supplement.

Another of Hamilton's initiatives was to begin the publication of an annual School House Natural History Society Report. The first issue came out in 1939 and publication continued until at least 1956. Forty pages of the first issue were given over to reports on the fauna and flora of the surrounding area. Subsequent issues were shorter, and after 1950 the number of animal groups dropped dramatically. The wealth of information about individual species published in the annual Reports is explained in the first issue: 'Last year was an important one for the SHNHS because we have now adopted a successful working system. Each member undertakes to study one group of animals or plants, and makes as many records as he can, carries out experiments and identifies specimens that other members may collect. In this way he endeavours to find out as much as he can about the biology of his group in the district surrounding the school. Each year he writes a report of his work, and he also makes all his records available for publication in a fauna list.' 'This report is really the more interesting and illuminating of these records, plus any experiments and conclusions connected with them. In addition, we thought it might be as well to give some hints on methods of collecting, preserving and other data that might be used by future generations of Dauntseians taking up any of these groups'.

The 1942 *Report* is interesting as it contains possibly the first article by the young Desmond Morris, subsequently to become famous for his broadcasts and writings on animal and human behaviour. By the age of fourteen, Morris had taken on responsibility for Amphibia and Reptilia. He made more than twenty expeditions to the Manor swamps, the Mill Stream, and the Viaduct, in the course of which he became particularly interested in toads (Figs.5,6). By 1944 he had also taken on the Vivarium in which he made 'a new organisation of pits and tunnels'. His final year, 1945, brought further responsibility in the form of a lecture to the members on 'the system of recording, card indexing, and making records'.



Fig.5. Drawing of a toad with a puffed out side by Desmond Morris, 1945.

Morris's own approach is summed up in an account he wrote of a small grass snake which he found coiled up by the side of the road: 'It made no attempt to move when picked up, and stayed as before. It was suspected that there was something wrong with the animal, and subsequently it was carefully inspected. Water was found to refreshen it considerably, and there were no visible wounds, but there was a swelling on the side of the head and neck. It was kept under observation for some time and the swelling appeared to go down a little. The animal showed no desire to eat, and its general condition of inactiveness remained the same. A week or so later, after it had been left unobserved for some time, its maggot-riddled carcase was found stretched out in its tank. This condition was very unfortunate as the corpse was rendered unfit to dissect, and the disease - if it was a disease - was never brought to light.'

The Dauntsey Fauna List was undoubtedly the Society's best known publication at this time. Although inscribed prominently on the cover with the dates 1920-1939, no records before 1931 are included. A large proportion of the 236 species listed emanated from the dew pond survey (increased in number by this time to 30), and particularly from pond 24. The order followed the 1939 *Report*, ie. the 24 Phyla of the animal kingdom starting with the most primitive: Protozoa, Platyhelminthes, Nematoda, Rotifera, Gastrotricha, Annelida, etc. through all the different groups of the Arthropoda, and finally to the Chordata embracing reptiles and mammals. An appendix added a worm, a springtail, and 33 beetles recorded in 1938 by D. Philpot. It also explained that birds were not included because they were covered separately in the Bird Trust's Report.

In some groups these appear to have been the first Wiltshire lists to be made and, in many others, they were second only to those published in the Marlborough College Reports. In the case of spiders (in which Marlborough appears to have taken almost no interest) the list is second only to the Rev. Pickard-Cambridge's Wiltshire list of 1912. Given the age of many of the Society's members

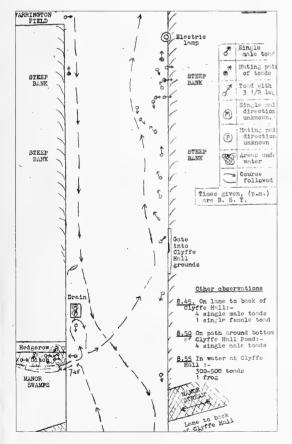


Fig.6. Diagram by Desmond Morris, 1945, showing the movement of toads on the Market Lavington Road.



Fig. 7. Lino cut by David Le Cren, 1939, used to announce meetings of the Dauntsey's Natural History Society.

and the lack of text books, the attributions need to be treated with caution. The compilers, however, were well aware of their deficiencies in this respect, and either did not attempt putting names to species about which they were in doubt, or determined to genus or family only. In the case of plants they were fortunate, for Coulson, a Fellow of the Linnean Society, was both a good ecologist and taxonomist. Although a list is provided of 37 boys and masters involved in the list's production these are not the collectors but those responsible for making the determinations. Four sets of initials are prominent, those of I.T.Hamilton and B.W.H.Coulson, and of the two boys, E.D.Le Cren and A.Macfadyen responsible, as already noted, for the dew pond survey and founding the Meterological Society respectively. Fired, presumably by Hamilton's enthusiasm, it was Le Cren and Macfadven who not only 'inspired the production' of the list and compiled it, but also took on the brunt of analysing the records and managing the layout of the stencils for copying. Le Cren also acted as the Society's Secretary and in this capacity was responsible for much of the 1939 and 1940 annual Reports too.

B.W.H.Coulson arrived at Dauntsey's in September 1934. Because of his interest in plants (and birds to a lesser extent) he immediately joined the Natural History Society (the nickname given to him by the members was 'Beetle', because he had rather protruding eyes). The third publication to appear in 1939, the *Botanical Bulletin*, was almost entirely due to him. According to the introduction, the *Bulletin* aimed 'to draw attention to botanical observations of interest', and 'to report on the progress of any investigations being carried out either by groups of boys or by individuals'. The intention was to produce a separate plant list and 'By publishing these longer notes here ... it is hoped to avoid overloading the list with data'.

No copies of Coulson's first plant list (published in June 1941) appear to have survived, but copies of the second edition, which included more than a hundred additions, exist in the WANHS library archive. Subsequently, both this list and a *List of Fungi*, written by Coulson in September 1945, were united in the *Flora List* published on 25 July 1952, five years after Coulson's departure for Oundle. The compilation of this list was mainly the work of two sixth formers S.B.Chapman and A.A.Hooper, who were able to add lists of Algae and Bryophytes; more than one hundred species of flowering plants; seven ferns; and thirty fungi.

According to a manuscript note added by Hamilton to the copy of the *Botanical Bulletin* in the archive: 'In 1940 Mr Coulson was called up, and the Botanical Bulletin and other publications for which he was responsible, passed into the hands of the Natural History Society. Under my editorship, the title was altered [to the *Biological Bulletin*] and remained thus after Mr Coulson's return from the Forces.' Only three editions of the new *Biological Bulletin* appeared (in April 1941, September 1942 and January 1947) before it was abandoned.

Together, the four *Bulletins*, which are numbered consecutively, contain almost forty articles most of which detail experimental work and field observations. Of those of local interest, one records the results of an ecological survey of Druid's Lodge on Salisbury Plain. Others record new species to the area including *Amoeba limicola* and the spider *Scytodes thoracica*. Another spider, *Epeira fasciata*, sent to Hamilton by a resident of Westonbirt, was reported as having recently arrived in Britain, and he included large scale drawings so that it could be looked out for in the West Lavington area.

One might have expected that the fierce commitment to research and publishing exhibited in 1939 would have lapsed after the start of the war, particularly given Coulson's departure to the front, but that was not the case. In 1941, for example, six expeditions were mounted to local sites in addition to those involved with the preparation of the annual Speech Day exhibit, and the fifth and sixth editions of the *Magazine*, the annual *Report*, and the *Biological Bulletin* were all produced. Other work involved an extensive amount of card indexing (these cards are presumably those preserved in three boxes in the archive), the up-dating of the species lists, and three business meetings at which a new constitution was agreed. That all of this was achieved was in large part due to Hamilton, whom G.H.Wiltshire, the new Secretary, noted had 'typed, reproduced, and largely written' all the publications. The opening paragraphs of the annual Report for 1948 attempted to do justice to Hamilton's achievements, but the writers had only been involved with the Society for two terms and tacitly admitted they had little knowledge of what had gone on before. They do, however, pay tribute to his work on the fauna of the area around the school, and particularly to 'the great effort that he made to bring the Fauna List up to date during the Summer Term of the last year'.

The Dauntsey Fauna List 1931-1948, being a corrected and updated version of the earlier Fauna List, must surely remain not just the greatest monument to Hamilton's labours, but to those of the members of the Natural History Society too. Published in parts between 31 December 1946 and 27 June 1948 (see below), it lists 879 species in 579 genera recorded by 106 observers, to which could be added 119 birds from the Bird Trust's list, making a total of 998 species, 762 more than in the first edition. Bound copies in the archive also include the fungi list of September 1945 and the second edition of the plant list of September 1944 which together add a further 495 species to this total.

A study of the lists of spiders and beetles suggests that approximately 33% of the names have changed and approximately 8% of species have been split into two or more species since the *List's* production. In addition, question marks hang over the determination of some of the more difficult species, which cannot be resolved without sight of the original specimens. But, in spite of these problems, there are many records which can be accepted with confidence. Indeed, for the contemporary biologist, struggling to understand the nature of one of the most poorly recorded counties in England, the list is very precious and there is good reason to be very grateful to the members of the Dauntsey's Society for producing it.

Given the level of Hamilton's input it was hardly surprising that, after he left Dauntseys in 1947, there was a rapid falling off in the amount of work and number of publications produced by the Society. Even by 1948 the expedition programme had been reduced to two outings, one of which was to study marine fauna and flora at Lulworth Cove.

Between 1952, when a new butterfly list was issued, and the early 1960s accounts are more positive. In 1956, for example, more visits and meetings were being held; in 1959 a new Constitution was drawn up; and in 1962 'celebrations' were held to mark the start of the new society and 'the first anniversary of the old society's dissolution'. But, behind this façade, membership and interest continued to drop. No Reports or other publications are known after 1956, and the Dauntseian soon stopped mentioning the Society altogether. The Society's Magazine also ceased production, its early mix of material having become more and more amateur, almost frivolous, and of little value to the serious student. In fact, it seems to have had distribution problems even earlier. Hamilton wrote of the 1945 edition: 'to boost sales, we announced that we were giving away free gifts. The School collection of butterflies was going very mouldy, so we broke this up and fixed a wing on to the back of every page (a very ticklish job making it stick), and here was our free gift! We printed about 120 magazines and there were not enough wings to go round ... within ten minutes of issuing the magazine a small boy had come along with a tale of having no wing in his copy, so we gave him a complete moth - he went away very happy. Then an irate sixth former arrived ... to pacify him we gave him one our biggest moths complete with pin.' By the 1960s the other collections were also disintegrating.

Hamilton's key role in the establishment and development of the Society is clear. His capacity for hard work, his commitment to natural history as a part of biology and, in particular, his ability to enthuse and support the pupils in his charge are all evident in the publications. Evident, too, is his sense of humour – the inclusion of numerous cartoons, the boyish jokes in his editorials, the leg pulls in which he engaged on outings.

Amyan Macfadyen says of Hamilton: 'he was totally against the kind of thing that present day education attempts; the word 'syllabus' was taboo in his presence. His aim was always to raise strong personal interest in his pupils and help them to think and arrive at their own understanding and view on subjects. He didn't suffer fools nor tolerate laziness. I think he was the real generator of the NHS but it was done surreptiously and, while receiving all possible backing from him we certainly felt it was our show'.

The backing included 'fighting a battle' with Olive to allow some members of the Society to use bicycles to search out dew ponds all over Salisbury Plain even when they were not in the VIth form. Interestingly, however, it rarely extended to accompanying members into the field himself, a task which he left to Coulson. With regard to his own input into the scientific work of the Society he was modest. In referring to the recorders in the revised Fauna List, for example, he introduced a method of 'valuing' their work. Two stars were given to those 'specialising in one group only, and therefore very reliable within that group. Or a general collector who was too cautious to make any rash claims'; and one star to 'careful recorders, often with a specialist knowledge of one group only, but may not have realised that other species existed, or a general collector associated with the school over a number of years, whose later records are more reliable than his earlier ones'. Macfadyen and Le Cren are given two stars each, but he awards only one to himself. Perhaps even more telling is a remark by A.O Chase, the secretary in 1940, who wrote of a lecture which Hamilton gave on 11 November in that year: 'Mr Hamilton gave his belated talk this evening on spiders - belated, because it was to have been on Wednesday after supper, but an untimely air-raid warning occurred. However, we enjoyed it all the same. Not being able to produce living things at this time of year he showed us some excellent slides, as well as some cocoons and dead specimens. Our enjoyment would have been enhanced if he had not been so apologetic about everything'.

Hamilton's concern with the importance of correct determination of species is one which all associated with contemporary biological and botanical recording will understand. What they will have more difficulty in comprehending, however, is the amount of reliance he placed on books, as opposed to consultation with other specialists and the use of comparative material. This was something which Marlborough understood well, and wide use was made there of the staff of the British Museum (Natural History) and others to identify difficult material. It is true that Marlborough was much helped by the presence of internationally respected authorities who were on the staff (such as Edward Meyrick, the microlepidopterist) or were old boys, and by the fact that many experts came to the school to give lectures. But Hamilton was himself in touch with Randall Jackson, Ted Locket and Theodore Savory, all well known authorities, to identify his favourite spiders, and T.T.Macan, the freshwater ecologist, was consulted by Macfadyen over the dew pond species, which make this omission the more surprising.

That relatively few contacts were made amongst specialists is the more puzzling not only in the light of Hamilton's clear recognition of the inadequacy of much of the reference material in the Society's library, but also given his belief in the importance of developing contacts with other schools. In their brief eulogium the writers of the 1948 Report noted that he was 'a keen supporter of the Association of School Natural History Societies and it is mainly through his efforts that the activities of our own society are known, we think, by other members of the Association. ITH was a strong advocate of meetings between the natural history societies of different schools...'. Marlborough, with its extensive library of up-to-date literature as well as reference collections, was only a few miles away and it is surprising that there was apparently no communication between the two until 1958 when their first joint meeting was held in the Farmer Laboratory. Of course it is quite possible that earlier overtures may have been made by Dauntsey's which were rebuffed.

While Hamilton's departure was undoubtedly a major factor in the sudden decline of the Dauntsey's Society, in another sense it could be said to have merely hastened the inevitable. The rise of ecology as a science, together with the growth of interest in physiology, genetics, DNA and biotechnology undoubtedly had a dramatic effect on the way students were encouraged to look at their environment. No longer was the focus so much on individual species. At the same time, the difficulties for the amateur in determining species were becoming greater as techniques became more demanding, equipment more expensive, and the quantity of literature burgeoned. In addition, greater attention on budgets and the broadening of the curriculum forced a hard look at expenditure, and the use of premises. Spaces occupied by activities not deemed to be 'core' could no longer be justified. Dauntsey's Natural History Society was not the only one to suffer, that of Marlborough and many other schools also disappeared during the next two decades.

After leaving Dauntsey's David le Cren went on to become Director of the Freshwater Biological Association, and Amyan Macfadyen to be Professor of Biology at the University of Ulster and President of the British Ecological Society. Like Desmond Morris and Anthony Huxley (who was a pupil at the school in the 1930s), they clearly benefited from the broad based teaching advocated by Hamilton and Coulson, as well as the 'hands on' experience provided by membership of the Natural History Society. Now, the emphasis on biodiversity, and the recognition of the destruction caused to the environment by dubious practices and policies at the end of the last millennium, is seeing a renewal of interest in species recording at the local level. The Bee Club at Dauntsey's still survives – a small ending, which also holds out the possibility of a new beginning.

LIST OF TYPESCRIPT 'PUBLICATIONS' BY DAUNTSEY'S SCHOOL NATURAL HISTORY SOCIETY (Includes those by both the School House Natural History Society and the Manor House Natural History Society)

Fauna Lists

(Note: Pages are un-numbered unless stated and blank sides have not been included. Unless mentioned all items exist in the WANHS archive)

1. Dauntsey Fauna List 1920 – 1939 (pp.27. Includes introduction, Map of the District and

2. A Check List of the Spiders Recorded in the Immediate Neighbourhood of Dauntsey's School, Wilts. Revised up to 31st Dec.1946. (pp.11 of which ten are numbered 2-11)

description of The District around Dauntsey's School.)

3. A Check List of Harvestmen, Mites, and Water Mites Recorded in the Immediate Neighbourhood of Dauntsey's School, Wilts. Revised up to 31st Dec. 1946. (pp.4 numbered 13-16)

4. A Check List of the Dragonflies and Damsel-Flies Recorded in the Immediate Neighbourhood of Dauntsey's School, Wilts. Revised up to July 31st. 1947 (pp.4 three of which are numbered 31-34)

5. A Check List of Those Animals commonly known as "Worms" (Flatworms, Roundworms and Leeches.) Recorded in the Immediate Neighbourhood of Dauntsey's School, Wilts. Revised up to July 31st. 1947. (pp.6 numbered 34-39)

6. A Check List of the Vertebrates (Excluding Birds) Recorded in the Immediate Neighbourhood of Dauntsey's School, West Lavington, Wilts. Revised up to 31st December, 1947. (pp.9 eight of which are numbered 40-46)

A BRIEF HISTORY OF DAUNTSEY'S SCHOOL NATURAL HISTORY SOCIETY

7. A Check List of the One-Celled Animals (Protozoa), Coelenterates & Polyzoa, Gastrotricha, Rotifera (Wheel Animalcules) and Mollusca Recorded in the Immediate Neighbourhood of Dauntsey's School, Wiltshire. Revised up to June 16th. 1948. (pp.16 fifteen of which are numbered 2-16)

8. A Check List of the Lower Groups of Arthropoda (Myriapoda, Crustacea, Wingless Insects, Mayflies, Bugs) Recorded in the Immediate Neighbourhood of Dauntsey's School, Wilts. Revised up to June 18th. 1948. (pp.13, six of which are numbered 46-49,57,58)

9. A Check List of the Higher Classes of Insects (Alder Flies, Lacewings, Scorpion Flies, Caddis Flies, Bees, Wasps, True Flies and Mosquitoes) Recorded in the Neighbourhood of Dauntsey's School, Wilts. Revised up to June 18th. 1948. (pp.18 sixteen of which are numbered 59,60,78,79,79A-e and 80-87).

Note: These pages had earlier been issued under the incorrect title: A Check List of the Two-Winged Insects (Flies and Mosquitoes) Recorded in the Immediate Neighbourhood of Dauntsey's School, Wilts. Revised up to June 7th. 1948.

10. A Check List of the Coleoptera (Beetles) Recorded in the Immediate Neighbourhead of Dauntsey's School, Wilts. Revised up to June 27th.1948. (pp.14 numbered 75,75a-k,76,77)

(Note: nos. 2-10 are titled S.H.N.H.S Publication 1947 or 1948 or 1947-48 and Dauntsey Fauna List (Revised).)

11. Dauntsey Fauna List 1931-1948. Revised 1947-48. Includes the lists 2-10,15 and 16 some of which have been altered and expanded, together with an Introduction to the Second Edition by I.T.Hamilton dated 4th July 1948, an account of The District around Dauntsey's School (by E. le Cren), a Map of the District (after E.D.le Cren), a list of Initials, and two pp. of Addenda and Corrigenda. Also includes other check lists not known to have been separately published including a printed Bird List (pp.114).

13. S.H.N.H.S. Publication 1953. Dauntsey Fauna List. (Revised). A Checklist of Butterflies and Moths Recorded in the Immediate Neighbourhood of Dauntsey's School, Wilts. Revised up to July 1953. (pp.16)

Plant Lists

14. A Plant List was published in 1941 of which I have not been able to locate a copy. The introduction by B.W.H.Coulson, dated 21st June 1941, is reproduced in 16.

15. Dauntsey's School Natural History Society. Plant List. 1. Angiospermae 2. Coniferae. 3. Filices. 4. Equisetaceae. 2nd Edition. September 1944. (pp.13)

16. Dauntsey's School Natural History Society. List of Fungi. September 1945. (pp.3)

17. The index to the annual *Report* for 1947 includes a Supplementary Plant List (p.7) but this is missing from the copies I have consulted. It may be the third edition of the plant list referred to in 18 below.

 Dauntsey's School Natural History Society. Flora List.
 Algae. 2. Fungi. 3. Bryophyta. 4. Pteridophyta. 5. Coniferae. 6. Angiospermae. First Edition July 1952 (Including the Second Edition of the Fungi List & the Third Edition of the Plant List.) (pp.21)

Magazines

19. See 20. Confirmation that a magazine was produced in this year is provided in no 7 Editorial. The editors were A. Pulford and S. Forsyth.

20. 'Last year [ie, 1937] Manor House produced a magazine for the second time.' (21, p.1)

21. The N.H.S. Ark. November 1938. (pp.60)

22. Supplement to the NHS Ark. January 1939. (pp.22)

23-25. I have not succeeded in locating copies for years 1940,1941.

26. Natural History Society Magazine No 7. November 1942. Price 6d (pp.28)

27. I have not succeeded in locating a copy for 1943.

28. Natural History Society Magazine no 8. November 1944. Price 6d (pp.43)

29-32. I have not succeeded in locating copies for years 1945-48.

33. S.H.N.H.S Magazine 1949 (pp.45) I assume this to be the last produced.

(A note in *The School House Natural History Society*, 1948, 6, states the Magazine 'has had the longest run of all non official School Magazines, 1936 – 46' and refers to a set of these years (missing no 1) having been bound and presented to the Society by Desmond Morris, but it is now missing.)

Bulletins

34. Dauntsey's School Botanical Bulletin. July 1939. (pp.15)

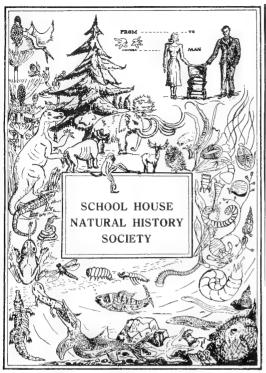


Fig. 8. Front cover of The School House Natural History Society, 1948, drawn by Bruce Sandilands

35. Dauntsey's School Biological Bulletin (Incorporating the Botanical Bulletin.) Number 1 April 1941. (pp.27 numbered 1-26)

36. As above. Number 2 September 1942. (pp.29 numbered 27-55)

37. As above. *Number 3 January 1947.* (pp.26 numbered 55-80)

Annual Reports

38-55. Annual reports for the years 1939 –1956, each titled *School House Natural History Society Report for the year* or similar. Most are between 8 and 14 pp. with the exception of the first which was 47 pp.

Miscellaneous

57. School House Natural History Society, 1948. (pp.51). Reprinted from two articles in the *Dauntesian* in September and December 1948 by the Wiltshire Gazette Printing Works, Devizes. The name of the compiler is not mentioned but was almost certainly I.T.Hamilton.

ACKNOWLEDGMENTS

At Dauntsey's I would like thank Mrs Murray, the Librarian, for giving me access to the school archives, and William Corke, Head of Biology, for information and for looking at a draft of this article. To two former members of the Society, David Le Cren and Amyan Macfadyen, I am particularly indebted, not just for their patience in answering my enquiries and for allowing me access to material in their possession, but also for the careful scrutiny which both gave to my text and the helpful suggestions for corrections and improvements which followed. Finally, I would like to thank Robert Moody in the library at WANHS for bringing the material to my attention in the first place.

Spiders of the Genus *Philodromus* (Araneae) in Wiltshire by Martin Askins

Spiders of the genus Philodromus are described and information provided on the seven species occurring in Wiltshire. This updates the data published in the Provisional Atlas of British Spiders, 2002.

Eleven species of the spider genus Philodromus are known to occur in the UK, of which seven have been recorded in Wiltshire, namely Philodromus albidus, P. aureolus, P. cespitum, P. collinus, P. dispar, P. margaritatus and P. praedatus. Whilst contributing to the National Spider Recording Scheme, which recently published its Provisional Atlas of British Spiders, (Harvey, P.R., Nellist, D.R. and Telfer, M. eds., 2002) I have been collecting records for spiders in Wiltshire. The present note updates the data contained in the Provisional Atlas, reviews the status of these species and describes their currently known distributions specifically with respect to Wiltshire. Since the data were submitted to the Provisional Atlas recording in the county has continued . However, North Wiltshire has more records at the moment than South and this should be borne in mind when interpreting the accompanying distribution maps.

The Philodromids are 'crab' spiders, so called because the two front pairs of legs are held splayed out sideways in an almost 'pincer-like' fashion. However, though they were once included in the Thomisidae, the Philodromidae are not 'classic' crab spiders and the front legs, though longer, are not more robust than the rear pairs (Fig.1). The Wiltshire Philodromids, with one slight exception, are all foliage dwelling and are generally found in the leaves and canopy of shrubs and trees. The exception is *P. margaritatus*, which is a bark dweller. Rather than constructing webs to catch their prey, they actively hunt or wait in ambush. All are spring



Fig. 1. Male of Philodromus cespitum

maturing, with activity generally peaking in June when mating occurs. As with many spiders, the males mature slightly earlier in the year than the females. The female lays and then guards the egg sac, though she is fairly easily disturbed, and the spiderlings hatch and feed up over the summer months before over-wintering as immatures.

P. albidus Kulczynski, 1911

National status: Nationally scarce, Notable B. (The national status of the more uncommon species is taken from Merrett, P., 1990. These may be revised in the light of the results of the National Recording scheme.) This species has a southern bias to its distribution.

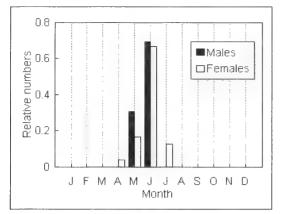


Fig. 2. P. albidus adult activity

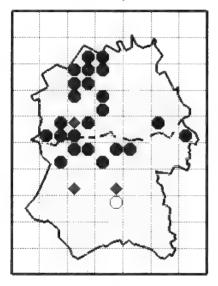


Fig. 3. Records for P. albidus in Wiltshire. (solid symbols, post (and including) 1980; open symbols, pre 1980; diamonds - immatures)

Wiltshire: Common and widespread.

P.albidus may be undergoing an increase in numbers and perhaps range. In the past it was usually only found as single specimens. However, in recent years several specimens have been found together; and on one site it was the most common Philodromid recorded! As with the more common species, it can be beaten from a range of shrubs and trees (hawthorn, box, holly, oak, beech hedges, etc.) but may require less disturbed habitats than them. For example, I have never found this species in gardens, though it does occur in churchyards.

Only in 1989 was it established that *P. albidus* occurred in Britain (Segers, H., 1989) rather than

the very similar *P. rufus* Walckenaer, 1926. *P. rufus* is yet to be recorded in the UK and was recently struck off the UK list (Merrett, P. and Murphy, J.A., 2000). *P. albidus* is identifiable when immature, if it is assumed that *P. rufus* is not present. However, as there is the possibility of *P. rufus* occurring, records for immatures are indicated by a different symbol on the map. (The pre-1980 record in the map, made by R. B. Coleman in Grovely Wood, has been plotted as *P. albidus*, though not confirmed as such.)

The map suggests that *P. albidus* occurs more frequently on clay soils rather than chalk and limestone downs (the underlying chalk and limestone are indicated with hatched lines in the maps). This may be the case but it may also be recording bias as more recording has been carried out in this area since the apparent increase in *P. albidus* numbers.

P. aureolus (Clerck, 1757)

National status: Common. Widespread.

Wiltshire: Common and widespread. The relative lack of records in the very south of the county is due to under-recording rather than absence of this species.

Beaten from foliage of shrubs in woodland edges and rides, hedges or scrub, this spider can be found in gardens and even wanders indoors. The male often has a purplish metallic sheen to its carapace and abdomen. However, this is not a constant

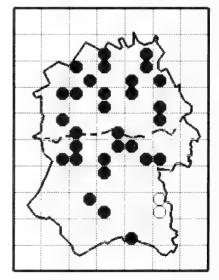


Fig. 4. Records for P. aureolus in Wiltshire

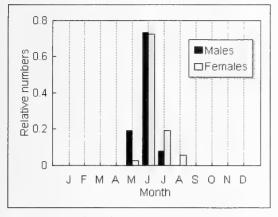


Fig. 5. P. aureolus adult activity

characteristic. Members of the aureolus group (*P. aureolus, P. cespitum, P. collinus, P. longipalpis, P. praedatus*) are difficult to distinguish, especially the females. Field characters for *P. aureolus* and others in the group are not reliable, and examination with a microscope is generally necessary to enable accurate identification at the species level.

P. cespitum (Walckenaer, 1802) (fig.1) National status: Common. Widespread but more common in the south of the country.

Wiltshire: Common and widespread.

As with *P. aureolus*, the relative lack of records in the south of the county is due to under-recording rather than absence of this species. *P. cespitum* is very similar in appearance, habitat preference and period of maturity to *P. aureolus* and was only accepted as a species separate from *P. aureolus* in 1974 (Locket,G.H., Millidge, A.F. and Merrett,P., 1974).

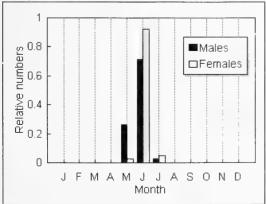


Fig. 6. P. cespitum adult activity

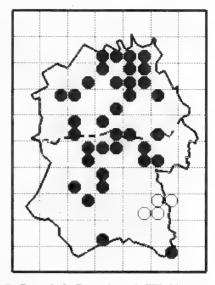


Fig. 7. Records for P. cespitum in Wiltshire

P. collinus C. L. Koch, 1835

National status; Nationally scarce, Notable B. Restricted to the south of the country. Wiltshire: Restricted habitat but widespread.

This species was first notified as occurring in Wiltshire in 1996, when a single male was beaten from a pine sapling in Stanton Park. However, an earlier, unreported record was made during an invertebrate survey on Parsonage Down in 1983 (P. Harvey, pers. comm.).

P.collinus is found almost exclusively on

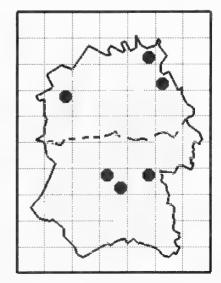


Fig. 8. Records for P. collinus in Wiltshire

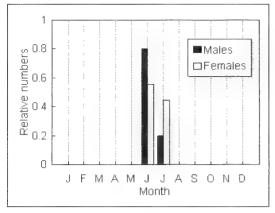


Fig. 9. P. collinus adult activity

evergreens, including yew. In 2001, when much of the countryside was under access restrictions due to foot and mouth disease, I visited several churchyards in order to record the spiders. This exercise produced several interesting records (ref. Recording Wiltshire's Biodiversity, 2001) including five new sites for P. collinus. In all cases the spiders were beaten from yew or box. Crocker, J. and Daws, J., 2001, have also noted the occurrence of P. collinus in churchyards and parks in Leicestershire and Rutland, which they ascribe to an expansion of its range. However, in Wiltshire I suspect that the examination of a previously unexplored habitat has produced the recent increase in numbers. Examination of further churchyards may well prove productive.

P. dispar Walckenaer, 1826

National status: Common. Widespread, but more common in the south of the country. Wiltshire: Common and widespread.

This species occurs in woodlands, more often than not in shadier areas, where it can be beaten from bushes and shrubs. *P.dispar* may be swept from the undergrowth more frequently than the other common species, *P. aureolus* and *P. cespitum*. It can also be found in gardens and sometimes wanders indoors.

The male of this species is very distinctive, with a black abdomen and black carapace with a narrow white border. The female, though distinguishable from the other species in the genus, is much more typically marked, with a mottled pattern in shades of brown.

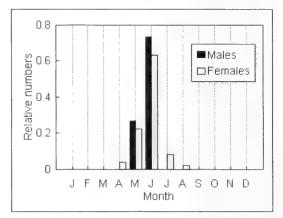


Fig. 10. P. dispar adult activity

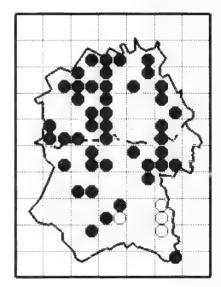


Fig. 11. P. dispar records in Wiltshire

P. praedatus O. P.-Cambridge, 1871 National status: Nationally scarce, Notable B. Widespread.

Wiltshire: Apparently very uncommon.

This species has been recorded sporadically at widely distributed sites in the UK, but nowhere as frequently as in Essex where it appears to be an almost common animal. It may be that members of the Essex Spider Group, who are an active group of recorders, have the right 'search image' for the spider's habitat and that it is more common nationally than appears. Peter Harvey, National Organiser of the Spider Recording Scheme and member of the Essex Spider Group, describes the typical habitat, in the *Provisional Atlas* as: 'mature

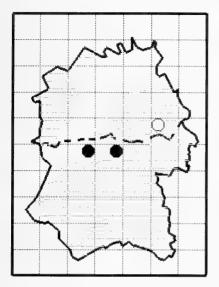


Fig. 12. P. praedatus records in Wiltshire

oak trees in open situations, in wood pasture, at the edge of woodland rides or in old hedgerows'.

This species was first recorded in Wiltshire in Savernake Forest by Clive Hambler in 1978. No further records were made until 2000, when two males were found at Worton in June and a female at Marden in July. At both sites the spiders were beaten from oaks; a single tree in a hedgerow at Marden (not far from the henge), and from a group of oaks beside a stream at Worton. In both cases the trees' canopies were in easy reach, allowing a good sample of foliage to be searched. If this spider preferentially occupies the higher reaches of the canopy its apparent rarity may be due to the relative inaccessibility of its preferred habitat.

P. margaritatus (Clerck, 1757)

National status: Nationally scarce, Notable B. Very uncommon; recorded mainly from the south of the country but also from central Scotland.

Wiltshire: Very uncommon. There have been no recent records. Indeed I do not know where nor when this species was found in Wiltshire, though it was noted as occurring here by Bristowe, 1938. *P.margaritatus* is found on the bark and, to a lesser extent, the foliage of lichen covered trees. It is very well camouflaged against such a background and hence may be under-recorded, especially in comparison with other species which can also more easily be beaten from foliage.

Species not recorded in Wiltshire

Of the other species, *Philodromus histrio* is unlikely to occur in Wiltshire as it requires acid heathland with stands of heather. *P. emarginatus* is also found on heather and has a very local distribution and is again unlikely to occur in Wiltshire. *P. fallax* usually occurs on the coast, on sandy ground. *P. longipalpis* has only recently been identified as occurring in the British Isles and has been found in Essex, Somerset and Surrey (ref. *Provisional Atlas*). Its habitat seems to be oak trees but immatures have been found on heather. It may well be found in Wiltshire. *P. buxi* was recently struck off the British list (Merrett, P. and Murphy, J.A., 2000).

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A Recent Geophysical Survey on the Site of the Residence of the Medieval Bishops of Salisbury at Potterne

by Naomi Payne

The medieval bishops of Salisbury used a number of manor houses both within and outside the diocese of Salisbury. The episcopal manor house at Potterne does not survive, but local tradition and the place name Courthill to the west of the main body of the village indicate its probable location. A resistivity survey of part of Great Orchard field undertaken in October 2001 confirmed this to be the likely site of the residence and provided a hint of the layout and size of the manor house.

INTRODUCTION

According to a list of manors belonging to the pre-909 bishopric of Sherborne which is contained within the 14th-century manuscript known as Faustina A, King Offa of Mercia (757-796) gave Potterne (Figure 1) with its appurtenances to the bishop of Sherborne (O'Donovan 1988, xlv). Potterne was certainly part of the endowment of the new bishopric of Salisbury in 1086 (Thorn and Thorn 1979, 3, 1), and therefore probably passed to Salisbury either directly from Sherborne or via the bishopric of Ramsbury (O'Donovan 1988, xlv). In 1139, the manor of Potterne was seized by King Stephen, along with Devizes Castle. Having passed into the possession of the Empress Maud, Potterne was returned to the bishop in 1146, after Pope Eugenius III had recognised that the manor formed part of the estate of Salisbury bishopric (Crittall 1953, 122, 209). McGlashan and Sandell (1974, 86, 89) suggest that these events prompted the construction of the episcopal manor house at Potterne, the bishop having lost the use of Devizes Castle but still in need of a local base after Potterne had been restored to the bishopric.

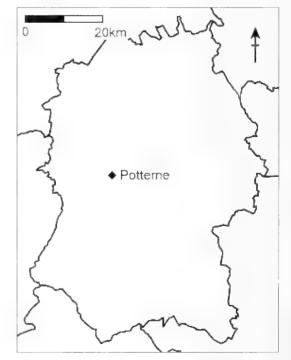


Fig. 1. Location of Potterne within Wiltshire

DOCUMENTARY EVIDENCE FOR THE BISHOP OF SALISBURY'S RESIDENCE

Bishop Herbert Poore (1194-1217) signed a document at Potterne in August 1199 (Kemp 1999, 165, no. 207) and another in July 1214 (Kemp 1999, 163, no. 205). It is therefore possible that an episcopal manor house was in existence at Potterne by the late-12th century. Bishop Bingham (1228-1246) issued a document from Potterne in 1242 and in 1246, not long before his death in November of that year, he consecrated a new abbot of Malmesbury at Potterne church (McGlashan and Sandell 1974, 86). St Mary's church was used for this purpose because the bishop was in poor health and he was presumably staying long term in his residence at Potterne. Bingham is also recorded to have given benediction to the abbot of Cerne in his chapel at Potterne, probably the chapel in his manor house. King Henry III issued a document at Potterne in 1255, indicating that the king may have been the guest of Bishop William of York (1246-1256) at the episcopal manor house (Jones 1876, 259-60).

The earliest surviving register of a bishop of Salisbury is that of Bishop Simon of Ghent (1297-1315). Ghent and his successors spent time at Potterne during the 14th and 15th centuries, judging by the dates on which documents were signed and received there in the registers. In 1337, Bishop Robert Wyvil (1330-75) obtained a licence to crenellate his manor at Potterne and a number of his other houses (Thompson 1998, 167). Forty years later, a similar licence was issued to Bishop Ralph Erghum (1375-1388), suggesting that the earlier permit had not yet been acted upon. It seems unlikely that work relating to the licences was carried out at each of the named locations, but may have happened at a selection, perhaps including Potterne. The chapel at the bishop's manor house was mentioned several times in the registers, for example in the register of Bishop Roger Martival (1315-30)¹ and the register of Bishop Robert Hallum (1407-17).² During the episcopate of Bishop Chandler (1417-1426), a statement of account reveals that an oriel window was added to his residence at Potterne (McGlashan and Sandell 1974, 88).

It appears that Potterne was used less frequently by the bishops from the second half of the 15th century: Bishop Richard Beauchamp (1450-81) seems only to have visited the village in the early part of his episcopate and Bishop Thomas Langton (1485-93) may not have used the residence at all, as no document in his register was signed or received there (Wright 1985, 123-128).3 It should be noted that the later registers contain many fewer documents, but it seems likely that the bishops of Salisbury did not use the residence at Potterne later than the mid-15th century. At some point fairly soon after this, the decision must have been taken to lease out the house and its land: a lease of 1538 refers back to another of 1508 (McGlashan and Sandell 1974, 88). The late-15th century Porch House on Potterne High Street may have been built as a result of the cessation of episcopal use of the manor house. It would have provided a base for the local bailiff and a venue for the manorial court once the manor house was no longer available (Haycock and Davey 1992, 8).

A 17th-century survey provides an indication of the size and scale of the old episcopal manor house, which must also reflect its general character during the late medieval period. This description (see McGlashan and Sandell 1974, 89), dated 1649, states that the manor house was:

built with free stone thoroughly tiled containing seven rooms belowe the stairs, i.e. one hall and kitchen, one parlour, one larder, one milke house and pantry house and one cellar, and seven rooms above ye stairs i.e. one faire chamber over the hall, another faire chamber over the parlour and over the kitchens and other chambers with it and two chambers more in the new buildings.

There was also:

a large house or building well walled and well covered with stone for the most part of it... which contayneth in breadth about 25 foote and in length about 80 foote which is called ye chappell now fitte for a barne. And one faire barn containing 8 baies or rooms of building built with free stone with timbers covered with tyle. Wanting some reparation in the coverings. And one orchard well stored with fruit trees containing by estimation one acre . . . the backside and yards about the same house containing about 2 acres.

The estate was worth $\pounds 10$. A survey of the parish from 1656 indicates that the residence was still in existence with its dwelling house, chapel, great barn and courts (Jones 1876, 260). The house may well have been demolished between this date and the early-18th century, when a new house was built to the west of Great Orchard, the surviving Courthill House (Pevsner 1975, 373).

THE SITE OF THE EPISCOPAL RESIDENCE

Local tradition and the place name Courthill to the west of Potterne village hint at the likely location of the episcopal manor (McGlashan and Sandell 1974, 90). To the east of Courthill House lies a field called Great Orchard (Figure 2). There are no earthworks within this field and no archaeological

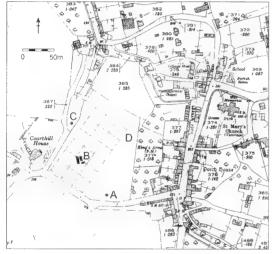


Fig. 2. Location of Great Orchard within the village, showing 1961 excavation (A), 1974 excavation (B), Plump Well (C) and 2001 geophysical survey (D)

features visible on the available aerial photograph coverage. There are few early maps covering Potterne, but those that survive reveal that Great Orchard was formerly arable (for example see WRO 1553/112, 1798; Potterne tithe map, 1839), which could explain the absence of any physical evidence above ground. In terms of the topography, Courthill would have been a suitable location for the palace, close to local facilities and resources, yet in a dominating position. On the western side of the field is a well, the 'Plump Well' (Figure 2, C), which would have been a convenient source of fresh water to the episcopal mansion. When this well was modernised in the 1930s two large steps made from non-local stone were removed (McGlashan and Sandell 1974, 90-91). These were on the south-east side of the well, facing toward the lower slopes of Courthill.

A small area within Great Orchard field was investigated archaeologically in 1973 by N.D. McGlashan and R. E. Sandell (1974). This followed a trial excavation in 1961 close to the road in the southern part of the field (Figure 2, A), which apparently revealed a gravel surface (McGlashan and Sandell 1974, 91). The 1973 work consisted of three trenches of approximately 9.0 x 0.9m, 6.8 x 1.6m and 5.0 x 0.7m (Figure 2, B). The excavators concluded that 'this site was one of wealth and importance . . . with clear connections with the church' (1974, 95), but that they had missed the actual dwelling house itself and located part of an ancillary structure.

The geophysical survey

A resistivity survey using a Geoscan RM15 was undertaken at Great Orchard in October 2001 to try to locate the site of the episcopal residence. The twin probe configuration was employed, with a 0.5m mobile electrode spacing. Eighteen 20m square grids were laid out using tapes and triangulation (Figure 2, D). Readings were taken every metre along zigzagged traverses spaced at one metre intervals. The location of the survey area within the field was surveyed using an EDM and the resistance readings were downloaded into Geoplot version 3 for Windows. Grids 16, 17 and 18 (at the north end of the survey) were partially restricted by an area of long grass. A shade plot of the data is shown in Figure 3 and in Figure 4 the plot has been superimposed onto a map of Great Orchard.

The 2001 resistivity survey has confirmed that the 1973 excavation did indeed miss the main domestic block of the residence, which appears to have been located slightly further to the north east, on a knoll opposite St Mary's church on the other side of Potterne High Street. The site would have afforded the bishop and his household good views not only of the village but also to the north and west. The geophysical plot shows clearly that there was formerly a large stone building in the middle of Great Orchard, centred on ST 99350 58488. A square block measuring around twenty metres in length and width is evident in the centre of the field (Figure 4, A). This appears to have had some internal divisions, but is partially shadowed, perhaps by rubble. It is tempting to identify part of this structure as the medieval hall, perhaps having been divided in the late or post-medieval period. To the north of this is another high resistance area (B),

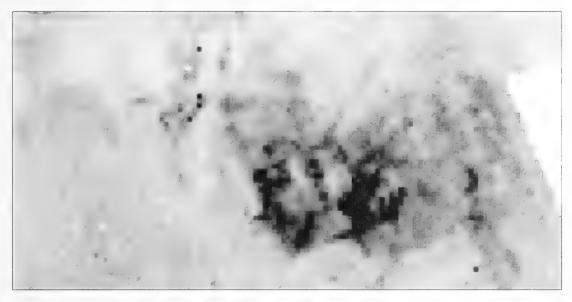


Fig. 3. Shade plot of the resistance data

but this is more haphazard in appearance and could reflect another rubbly area. East of this is a rectangular high resistance anomaly (C); the dimensions of this roughly match the 17th-century survey of the 'chappell now fitte for a barne', which would have been approximately 24.0 by 7.5m ('about 25 foote and in length about 80 foote'). The orientation of the anomaly fits with its suggested identification as the bishop's chapel. To the west of the high resistance square block is another area on the same alignment of a similar size where moderate resistance readings were obtained (D). This could perhaps have formed part of the original building, but has been more comprehensively robbed of its foundations. To the north of this is what could be a courtyard wall (E). No obvious structures appear on the other sides of this possible courtyard, suggesting that it was a garden court. Two lines of high resistance cross the courtyard, perhaps delineating paths leading to the nearby well, or possibly post-medieval field drains. Another possible pathway leading towards the well is located to the north of this (F). There is no detached building in evidence that could be identified with the great barn, although this ancillary structure could have been situated to the north of the square block in the more indistinct area of moderately high resistance, or further to the east outside the limits of the survey.

The survey has not shed any light on the medieval access to the site. No obvious trackway

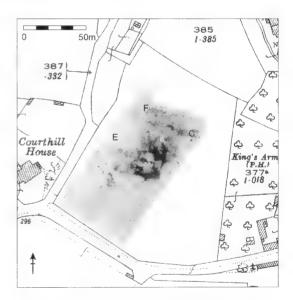


Fig. 4. Resistance data superimposed on to Great Orchard (see text for explanation of letters)

has been revealed by the geophysics. Although the road to Worton runs along the southern side of Great Orchard and there is a marked hollow road way to the west, Plump Lane, access connecting the manor house to either is not forthcoming. The bishop's house could equally have been approached from the village below, from the north or east, but the survey has not revealed a possible gatehouse structure to help shed light on this. Neither the modern road layout nor historic maps provide a clear answer to this question.

CONCLUSION

The recent survey has pinpointed the likely location of the episcopal residence at Potterne, at Courthill, to the west of the village. The complex was apparently quite extensive, as is to be expected because of the large household that would have travelled with the bishops. The precise layout of the residence and its precinct are still obscure but any future work will have a clear focus.

ACKNOWLEDGEMENTS

I am very grateful to Mr C. Pearce, the owner of Great Orchard, for granting permission to carry out the survey. Thanks also to Lesley Adams for her help with the fieldwork.

Notes

- 1. e.g. Edwards 1959, 185 (03.03.1321), 242 (04.01.1322), 427 (29.07.1324); Reynolds 1965, 180 (09.04.1319)
- 2. Horn 1982, 1030 (22.09.1408), 1035 (17.05.1410, 1041 (27.02.1412), 1044 (17.12.1412), 1142-3 (07.06.1412)
- 3. See also typescript itinerary of Bishop Beauchamp by Dick Sandell, held at Wiltshire Record Office

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Excavation and Fieldwork in Wiltshire 2000

Amesbury

Boscombe Down Airfield; Prehistoric, Roman and modern

Eleven watching briefs were undertaken on the airfield at Boscombe Down by DERA Archaeology during 2000. Nine produced modern or geological features; two however produced evidence of earlier periods. The first, centred on SU 1730 4053, revealed part of a linear feature of possible Bronze Age date (SMR No SU14SE750). The feature was badly truncated by buildings on the airfield. A number of other features were noted, again truncated, and without dating evidence. The second watching brief (centred on SU 1716 4029) produced evidence of a double linear feature of Late Bronze Age - Early Iron Age date (SMR No SU14SE749). One leg of the linear was investigated. Here it was 0.9 m deep, 2.8m wide at the base and 5.0m at the top. It is possible that the surface of the site was partially removed in modern times, as the boundary between the topsoil and upper fill was extremely sharp. Of note was a 1st - 2nd century Roman nail cleaner, possibly part of a chatelaine, from the lower fills (Figure 1). The work was carried out by Colin Kirby, Gary Ancell and Bob Clarke. All projects were managed by Colin Kirby for DERA Archaeology.

Butterfield Down (SU 1675 4118); Prehistoric and Romano-British

Archaeological observations were conducted by AC archaeology in conjunction with groundworks to excavate a pipe trench on land under development for housing at Butterfield Down (Phase 3). The site lies within an area rich in recorded archaeology, with prehistoric and Roman funerary sites less than 1 km away to the east and south, and the extensively investigated prehistoric and Roman site of Butterfield Down some 100m to the west. Approximately 200m of trench was excavated under archaeological supervision, and a single large undated ditch was recorded. The dimensions and alignment of this ditch suggest that it may be related to the Earl's Down Farm linear, a substantial boundary or land division of probable later Bronze Age date.

Earl's Close Nursery School, Boscombe Down (SU 172 408); Modern

An archaeological evaluation by Wessex Archaeology on the proposed site of a new nursery school and associated car park revealed only 20thcentury brick and concrete footings and service trenches cut into the natural chalk. These features were associated with pre-fabricated buildings that formed Earl's Close until their demolition in 1972. The close spacing of these former buildings in this area and the probable truncation of the ground surface in association with their construction and/ or demolition suggests there is little potential for the survival of earlier archaeological remains on this site.

Lidl, Porton Road, Boscombe Down (SU 1678 4130); Romano-British

Wessex Archaeology undertook excavation on the site of a proposed new retail store and car park. The site had been stripped of topsoil in 1993 during the development of an adjacent plot and very small scale sample excavations were carried out. Features identified at that stage included a ditch and two Beaker pits, a so-called 'linear ditch' thought to be of Bronze Age date, and a series of ditches of Romano-British date. The site was cleaned and more extensive excavation undertaken.

No further evidence for later Neolithic or Early Bronze Age activity was discovered. Another section was excavated through the linear ditch. No dating evidence was recovered, but an assessment of the land snails indicates that it lay within an open environment. During the Romano-British period the site lay outside the main area of late Roman settlement known on Boscombe Down and was part of the land farmed by that community. Part of the site was occupied by a small ditched enclosure that is likely to have formed part of an extensive system of Celtic fields. The other ditches are also likely to be of Roman date, but they did not form part of this regular and extensive system, which suggest that they may be either of a different date or had a different function.

Park Farm (SU 143 417); Modern

An archaeological watching brief was undertaken by AC *archaeology* at Park Farm, West Amesbury. The stripping of topsoil was monitored within the area designated for a new agricultural building on the edge of the track to the rear of Park Farm Cottages. No archaeological deposits or premodern finds were present.

Proposed Amesbury Business Park, Folly Bottom (SU 170 422 (Area 1a) and SU 170 420 (Area 1b)); Prehistoric and Romano-British

The archaeological evaluation of Area 1 of the proposed Amesbury Business Park was conducted by AC archaeology during June 2000. Eleven trial trenches were excavated by machine in two areas situated to the north (Area 1a) and south (Area 1b) of the A303. A total area of 1972m² was evaluated, comprising a c.1% sample of the two fields. The site lies within an area rich in archaeological remains, although no positively identified archaeological sites lie within the boundaries of the current work. Area 1b, as part of a larger parcel of land allocated for development, has been the subject of previous phases of archaeological investigation. A combination of hand-dug trial pits, an auger transect, fieldwalking, and archaeological monitoring of geotechnical trial pits, had indicated the presence of low density prehistoric flint scatters and colluvial deposits within the base of the dry coombe running NW-SE across the site.

The present work identified a low level of subsurface archaeological deposits surviving within Area 1. Within Area 1a two truncated negative lynchets and two possible scoops lay in a cluster towards the centre of the field. Three sherds of Romano-British pottery and a small quantity of worked flint were recovered from these.

Within Area 1b more archaeological deposits were present. A number of small, undated linear gullies and a parallel ditch and gully were dispersed across the field. These may be remnants of a former field system, possibly associated with the known Iron Age and Romano-British farming settlement at nearby Butterfield Down. A large, isolated ditch terminal recorded within Trench 7 displayed a recut, the upper fill of which yielded Early Bronze Age pottery and flint-working debris, possibly indicating *in situ* knapping activity.

Within both Areas, extensive colluvial deposits were recorded in those trenches traversing the coombe bases. These were subject to limited investigation by hand-dug sondages, which proved them to be shallow in nature, lying directly above natural chalk deposits. The colluvium was removed by machine from two trenches in Area 1b to determine the presence of underlying archaeological deposits - none were found, although a small quantity of worked flint was recovered from the surface of one of these horizons.

Proposed Amesbury Business Park (SU 174 419); Modern

A number of geological test pits were monitored by AC *archaeology* in February 2000 prior to the commencement of development at Amesbury Business Park. No archaeological features, deposits or individual finds were revealed during this work.

'The Ramblers', Stonehenge Road (SU 146 415); Modern

An archaeological field evaluation was carried out on the site of a proposed new dwelling at 'The Ramblers', Stonehenge Road, by AC *archaeology*. The site lies within the southern ramparts of Vespasian's Camp hillfort on the west side of Amesbury. The evaluation comprised the machineexcavation of a single trench on the line of a proposed footing trench for the new dwelling. The trench proved negative, with no subsoil features or deposits of potential archaeological interest present. No pre-modern finds were recovered from spoil heaps.

Ansty

Ansty Manor (ST 9558 2632); Medieval and Post-Medieval

An archaeological watching brief was carried out by AC *archaeology* during the stripping of the site for the construction of an underground swimming pool to the west of Ansty Manor. Finds included 13th-century pottery and a single Romano-British sherd from a buried soil in the vicinity of the Manor House. This may be derived from some local occupation, or perhaps from agricultural activity upslope from the site during this earlier period. An

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18th-century midden deposit (including a residual late 16th-century jetton) was also recorded. A substantial wall of probable 18th-century date cannot be related to any known structure; no indications of any floors or surfaces were found, and it is possible that the wall is part of a formal walled garden extending beyond the surveyed area.

The 'Hospice', Ansty Manor (ST 967 264); Medieval

Five hand-dug trial pits were excavated by AC archaeology within the 'Hospice', a Scheduled Ancient Monument adjacent to Ansty Manor. The investigations were commissioned primarily to allow the structural engineer and architect to observe the extent and conditions of the foundations in advance of the proposed consolidation and re-roofing of the entire building. The investigations provide evidence for the nature and construction of the principal walls, and for the presence of earlier floor surfaces. The limited extent of the investigations and a lack of datable artefacts from the investigations limit specific conclusions about the full chronological sequence of the building's development.

Avebury

High Street (SU 0980 6980); 19th Century/ Undated

Cotswold Archaeological Trust (CAT) undertook a watching brief during groundworks associated with the laying of a telecom cable. Two 19th century or later dumped deposits were identified along with two undated pits or linear features.

Avebury World Heritage Site

South Street, Avebury Trusloe (SU 0946 6954); Medieval and Post-Medieval

Following a geophysical survey of the site, an evaluation undertaken by CAT identified a probable medieval ditch with subsequent re-cuts, as well as a number of undated shallow pits and plough furrows.

Bratton

10 Court Lane; Medieval and Post-MedievalAn application to erect a building resulted in the cutting by Bernard Phillips of two archaeological evaluation pits. These revealed a stone surface and garden cultivation layers that attest to activity from the 16th/ 17th to the 19th centuries, and three residual sherds of late medieval pottery.

Broad Town

Various; Late Iron Age, Roman, Medieval, Post-Medieval and Undated

Two areas (centring on SU 0920 7790 & SU 0890 7775) of the parish were surveyed by students from Swindon College, revealing archaeology of medieval date. Two watching briefs were carried out by B.T.A.P. members. The first (at SU 0915 7795) was over an area of 72m². A number of features were noted, all dated by ceramic evidence to the postmedieval period. The second (at SU 0895 7760) revealed an undated ditch. Five hectares of fieldwalking centred on SU 0840 8830 produced a large spread of Late Iron Age - mid-Roman ceramics, along with fragments of quern stones and spindle whorls. The condition of the finds suggests this is a manuring spread. One excavation was carried out during 2000 by B.T.A.P. members at SU 0955 7765. The site contained the partially exposed remains of a human burial which had been located by walkers. The individual was male, aged between 35-45, and 1.70m tall. He was buried in a shallow grave (0.25m deep), supine with head to the south-west. Dating evidence was unfortunately inconclusive. However, the position of the grave is of interest, being located on a crossroads of at least medieval date. All work was directed by Bob Clarke.

Calne

North side of Calne; Iron Age

Recently there has been extensive development for housing on the north side of Calne. During preparatory works for the provision of services on one of the estates in June 2000, a sharp-eyed foreman ("I watch Time Team with my daughter") spotted a pot emerging from an area of dark soil. The County Archaeologist was informed and Tim Robey began the planning, recording and excavation of the site before handing over to Gill Swanton. At the time, only a few days were allocated for excavation by the developers, Beazer Homes. However, as the importance of the site emerged this was generously increased, and excavation on the site eventually took place over four weeks.

The bulk of the archaeological evidence consisted of pits of varying size and shape containing Iron Age material covering a wide date range



Fig. 1. Calne: horse skull in Iron Age pit

(Figure 1). Detailed analysis has not yet taken place, but there are indications that the inhabitants practised a mixed farming economy, which also included a textile industry based on wool. They had established their dwellings on a small outcrop of limestone brash adjacent to clay areas that would have provided excellent grazing. There was also evidence for cereal processing, the presence of horses, and a predilection for collecting interesting stones and fossils.

The site is important as it starts to 'fill in the gap' between the chalk to the east and the limestone hills to the west. That its presence was not previously known is due to the depth of the overlying soil, which precluded any clue through drought-induced crop marks in the long-term grass sward. Indeed, the existence of the limestone outcrop was not even suspected.

The excavation was carried out by a stalwart team of volunteers drawn from the local community (most of whom had never dug before!), Bristol University students and members of the Society's Field Group. Mark Corney kindly surveyed the site, Mark Evans is drawing the finds and Bradford Geophysical Surveys carried out a magnetometer survey. The fieldwork has been followed up by two finds processing days; the first coinciding with National Archaeology Day in July 2000, and the second in Calne in February 2001. The success of the latter was largely due to the hard work put in by Wendy Smith. Tremendous support was received from BBC Wiltshire Sound and the local press. Nick Mayl deserves special thanks for the long hours he put in, his patience and his dedication to the cause.

Calne Without

Quemerford Farm (SU 010 699); Post-Medieval Survey of earthworks at Quemerford Farm by English Heritage revealed traces of former buildings and closes. While earlier origins cannot be ruled out, these may represent post-medieval encroachment and enclosure of part of Quemerford Common, at an important focal point and fording position, where clothing industry based on the River Marden is recorded in the late 16th century. Cartographic evidence provides support for shifting, essentially short-lived settlement throughout the 18th-19th centuries. The former agricultural focus of Ouemerford is shown to have been over 1km distant from the present centre, situated on the slopes of the Chalk/Greensand escarpment close to Cherhill. In common with much of the surrounding low-lying area, the site shows evidence of a sequence of drainage activities, many of which give a corrugated ridge-and-furrow like effect. Further details are available from the National Monuments Record Centre, Report no. AI/22/2000.

Cherhill, Avebury and West Overton

A4 corridor between Yatesbury and West Overton (SU 0564 7020 to SU 1322 6844); Undated

The archaeological monitoring of the installation of a fibre-optic cable trench and associated works between Yatesbury and West Overton was conducted by AC *archaeology*. The monitored works consisted of some 5.5km of trenching and associated receptor pits sited along the verges and carriageway of the A4. This lay wholly within the Avebury World Heritage Site, traversed the boundaries of two Scheduled Ancient Monuments (SAM28131/01 and SAM28131/02) and ran adjacent to a third (SAM21761). These monuments comprise parts of the West Kennet Avenue and the Sanctuary, elements of the Avebury complex.

The archaeological project comprised monitoring of contractor's topsoil strip and trenches, including the excavation of regularlyspaced receptor pits. No archaeology was revealed within any of the receptor pits or within the greater part of the trenches linking them. This was largely due to the presence of extensive previous service trenching along the route, the siting of trenches along modern road embankments constructed to carry the A4, and the presence of deep road cuttings, truncating archaeological horizons.

One short (11m) section of trench cut into the lay-by and carriageway adjacent to the scheduled area of the Sanctuary revealed a concentration of archaeological features centred on SU 1185 6805, including an undated animal burial pit cut through an earlier extensively burnt deposit, within which lay two possible burnt post-holes. To the east of these features, a large pit or ditch lay adjacent to the well-defined hollow-way of the Ridgeway. These features may relate to activity associated with either the Sanctuary or the nearby barrow cemetery, but cannot be dated on the basis of the evidence obtained. All of these remains are well-preserved at a relatively shallow depth below the road and pavement metalling, and beneath the adjacent grassed verges.

Corsham

Pockeredge Farm and Peel Circus (ST 8610 6985); Iron Age and Romano-British

Wessex Archaeology carried out an archaeological evaluation in connection with proposed residential development of land immediately to the south-west of Corsham. Desk-based assessment had established that the site contains a small number of known archaeological sites, including a Roman limestone coffin burial and a nearby midden pit. Documentary and place-name evidence indicate the existence of a short-lived medieval deer park which may have covered all, or part of, the site. A site visit recorded a number of earthwork field boundaries. Cartographic evidence showed that 19th century quarries occur within the site.

An Iron Age post-hole was found in the northeastern part of the site. The presence of charred grain and a fragment of a saddle quern in its fill indicate arable cultivation and crop processing in the vicinity. Nine Romano-British features were found in the western central part of the site. Although there were no definite structural features, abundant evidence was collected for settlement/ domestic activity. Nearly a kilo of pottery, a spindlewhorl, glass and cattle and sheep/goat bones were recovered from the excavated segments of the nine ditches, gullies and/or pits. In addition, evidence for crop processing was recovered from samples of these features. However, the evaluation demonstrated that there has been some degree of modern disturbance to these deposits from former wartime MOD structures. No evidence was found for the stone coffin uncovered and recorded during wartime construction, despite the location of one of the evaluation trenches over its given position.

A further six undated ditches were recorded

within the central and eastern part of the site. No medieval or post-medieval remains were found within the site. In particular, no evidence was found to support, or refute, the possible use of all or part of the site as a deer park.

Cricklade

Land off North Wall (SU 1005 9390); Roman and Saxon

A watching brief was undertaken by the Oxford Archaeological Unit (OAU) during the construction of a new vicarage. The site lay partially within the scheduled monument of Cricklade Town Banks (SAM: 323), including the North Wall which formed part of the Saxon burgh defences. Cricklade is thought to be one of the fortified towns established by King Alfred in the 9th century. There is also evidence for Roman activity in the area.

To the east of the site, limestone wall-footings of a substantial structure were observed. The dating of this feature is problematic, but is likely to be Roman. This structure was under a gully and subcircular cut, both containing Roman pottery. The sub-circular cut was partially truncated and could represent either a cremation or a pit. At the extreme west of the site, a deposit was identified, which, given its proximity to the scheduled earthworks, is possibly of ditch fill associated with the Saxon burgh.

Proposed Biomass Power Project (SU 115 925); Romano-British and early-mid Saxon

Wessex Archaeology carried out an archaeological evaluation on land adjacent to the Kingshill Recycling Centre near Cricklade. The proposed development comprises the construction of a small-scale power plant, fuelled by renewable wood sources. Desk-based assessment had established the presence of seven archaeological sites and find spots near the evaluation area although none is recorded for the site itself. The most significant of these is a Roman villa (SM 31664) and Roman road to the east of the site (the present course of the A419). Recorded find-spots included an Iron Age coin, Roman, Saxon and Medieval pottery, and undated linear and rectilinear cropmarks. The presence of these suggested there was a high probability that the site contains archaeological remains.

Nine machine-excavated trenches covering

 $810m^2$ uncovered a partially ploughed out ridge and furrow system. A concentration of features was uncovered beneath the ridge and furrow in the southern part of site, ranging from Roman to postmedieval. The density of features increased to the east and south-east (i.e. closer to the location of the Roman building). Both the faunal and environmental data suggest that the site is located on the periphery of a settlement, presumably related to the known Roman building. Most features were Romano-British, inluding two – a pond and a possible trackway – that contained a 'dark' fill in which Romano-British and early-mid Saxon pottery was found. A significant number of early-mid Saxon features were also encountered.

Devizes

Brickley Lane (SU 0195 6090); Iron Age, Roman and Medieval

Works undertaken by OAU concentrated on three of the four areas of potential highlighted by the evaluation carried out during the summer of 1999 [see above, pp.214-39]. Area 1 was situated at the north-eastern end of Brickley Lane and occupied a low crest at the base of Jump Hill. The land slopes away to the south and west, with marsh land to the east, beyond which are open fields. Area 2 lay further south in a gently undulating arable field, with Area 4 located to the west of Brickley Lane in flat pasture.

Area 1 was found to contain a double enclosure (the eastern end of which may in fact be the drip gully of a roundhouse). This included gullies and fence lines, and a pit and post-hole scatter (including a possible four-post structure), all of late Iron Age date. A Roman trackway was also found, possibly on the line of an earlier drove-way and respecting the alignment of the enclosures. All features were concentrated on a low crest in the eastern half of the site. Area 2 revealed two gullies and a shallow ditch that seemed to be part of a medieval field system. Area 4 contained ten ditches and a gully representing a sequence of field boundaries of probable Romano-British date.

Caen Hill Locks (ST 9900 6145); 19th Century CAT undertook a watching brief during groundworks associated with the excavation of a new telecom junction box. A terrace cut and stone revetment wall probably belonging to the construction phase of the canal were identified.

Dilton

Northacre Business Park, Westbury (ST 8538 5204 - ST 8502 5297); Romano-British, Medieval and Post-Medieval

An archaeological watching brief was conducted by AC archaeology during the construction of a new flood relief channel at Northacre Business Park. The observations followed the line of previously constructed channels for two-thirds of their route, with undisturbed land encountered only in the central third. The route of the channel passed within 100m of a Roman villa and within 0.5 km of known medieval settlement to the south-east. The central third also passed directly through a field containing a previously recorded medieval ridge and furrow system. The watching brief allowed the sketch plotting of the ridge and furrow, showing it to be the remains of two systems with part of an associated droveway to the east. Two sections were recorded across the ridge and furrow, while stray finds of Roman, medieval and post medieval pottery were recovered from topsoil stripping along the route. Elements of a post-medieval drainage channel system, probably serving water meadows, were also noted. No Roman features or deposits appear to have been disturbed by the development.

Hullavington

Bradfield Manor (ST 895 830); Medieval

In March 2000 CAT undertook a programme of archaeological recording during groundworks for the construction of a tennis court and wildlife pond within the grounds of Bradfield Manor. Immediately to the north of the house is an area of earthworks interpreted as a possible medieval village. Two sections of wall footing corresponding to an existing earthwork were identified.

Idmiston

Manor Farm, Church Road (SU 1975 3730); Modern

An archaeological evaluation of land at Manor Farm, Church Road was undertaken in June 2000 by AC *archaeology*. The evaluation comprised the machine-excavation of a single trial trench measuring 30 x 1.6m, sited towards the rear of the property. Although the site lies within the probable Saxon and later medieval boundaries of Idmiston, excavation revealed only modern layers overlying a

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truncated bedrock. No archaeological features or pre-modern finds were present.

Latton

Eysey (SU 111 941); Medieval and Post Medieval Between July and August 2000 CAT carried out a watching brief in advance of the cutting of a gas pipeline from Duke's Brake to Cricklade. In one area, near Eysey Manor Farm, the pipeline was planned to run through an area of earthworks thought to belong to a medieval/post-medieval water management system on the outskirts of the deserted medieval village of Eysey. As a result, the trench wayleave was restricted to a width of 2m and was excavated prior to the pipe trench being cut.

Several medieval pits and a hearth were identified along with several linear features, probably drainage ditches, of medieval and postmedieval date. A post-medieval building was also identified. Work on the pipeline is due to be completed early in 2001, and will be followed by a fuller report on the results.

Latton Lands (SU 760 680); Bronze Age

Gravel extraction by Cotswold Aggregates on both sides of the new A419 continued to be monitored by the OAU. Part of a ring ditch was located adjacent to the road on the western side (PRN 625). This had been evaluated by CAT in 1995. The exposed area was planned and it was covered and fenced off for *in situ* preservation. Two pits containing burnt stone and charcoal and medieval plough furrows were the only other archaeological features found in this area.

In 2000 stripping began on the east side of the road. Archaeological work focused on a feature believed to be a rectangular enclosure, visible from the air (PRN 626). An L-shaped ditch was exposed with a gap in its north-east corner. A substantial assemblage of middle Bronze Age pottery was recovered from the ditch, especially at the 'entrance' terminals. A waterhole and several pits were located in the 'entrance' area, and a circular posthole building, 6m in diameter, lay further west near the north ditch. Initial interpretation that this was an enclosure at the edge of woodland, using forest cover to form the west and south sides, is belied by the preliminary results of pollen analysis from the waterhole, which suggest the area was open, grazed grassland at the time.

One other small circular building and several widely scattered pits have been found in the surrounding area during a subsequent watching brief.

Liddington

Liddington Castle (SU 209 797); Iron Age

Analytical earthwork survey of this hillfort was undertaken by English Heritage, as part of the Countryside Agency's Ridgeway Heritage Project, in advance of repair works to erosion scars on the ramparts. In addition to this ground survey, two aerial photographic sorties were flown and aerial photographic transcription of the area around the fort was undertaken. Features of note include two slight linear hollows, which appear to be overlain by the counterscarp of the hillfort and might be the remains of linear ditches. A more substantial linear, on the western slope of the hill, can be seen on aerial photographs to extend for a considerable distance to the west. The fort has an eastern entrance, and survey supports the idea that there was also a western entrance, blocked in antiquity. The ramparts have been badly damaged by quarrying on the south-western side but are otherwise generally well preserved. The interior has been much disturbed by quarrying and other recent activities. Though one or two possible hut circles are visible there is little evidence of intensive occupation. There is also little sign of subsequent use of the site, with the exception of a possible pillow mound on the south side, the quarries, and some remnants of military activity in the early and mid 20th century. Further details are available from the National Monuments Record Centre, Report no. AI/4/2000.

Liddington Castle (SU 209 797); Iron Age

At Liddington Castle hillfort near Swindon, weathering and the actions of grazing livestock had caused the formation of numerous erosion scars on the monument. Prior to their consolidation by a specialist conservation firm, these erosion scars were subject to archaeological recording by Wessex Archaeology. This work provided tentative evidence that the final phase of rampart construction included a timber palisade, and that the preceding phase may have contained some internal timbering. Two sherds of prehistoric pottery were recovered from one of the scars.

Ludgershall

26 Castle Street (SU 263 512); Medieval and Post-Medieval

Archaeological supervision by Bernard Phillips of machine and hand cutting of a foundation trench resulted in the discovery of a 19th-century pit and a large 12th- or 13th-century ditch. The ditch had seemingly been recut several times, culminating in a much smaller ditch that produced 17th-century pottery.

Lydiard Tregoze

Lydiard Park (SU 1027 8485); Medieval and Post-Medieval

Investigation of the walled garden at Lydiard Park, following an application to construct a plant nursery, revealed that much of the Georgian garden layout survives. Bedding trenches, paths, and a probable tree-planting pit were amongst the features located. Alterations and additions to the layout culminated in a Victorian kitchen garden. Beneath the garden a ditch, pig burial and an occupation layer attest to late medieval settlement. The work was undertaken by Bernard Phillips.

Marlborough

Axford to Forest Hill Watermain (SU 2200 7700/ SU 2055 6850); Prehistoric/Roman

CAT undertook a watching brief during the laying of a pipeline. A small assemblage of struck flint was recovered and the line of the Roman road running north from *Cunetio* was identified.

Marlborough Mound (SU 1837 6866); Medieval and Post-Medieval

Following the preparation of an archaeological deskbased assessment, Wessex Archaeology undertook limited archaeological investigation on the Marlborough Mound, located within the grounds of Marlborough College. The Royal Commission on the Historical Monuments of England (RCHME) was also commissioned to produce a measured survey of the monument.

The Marlborough Mound is a Scheduled Monument (Wiltshire No. 321) which has been well documented from the medieval period onwards. The mound formed the motte of a motte-and-bailey castle from at least the middle of the 12th century and was later incorporated into extensive garden works in the 17th century. It has been supposed that the construction of the brick Belvedere, on the south-east face of the mound, dates to this period. The archaeological works were undertaken as part of the College's intention, aided by a benefactor, to consolidate and return the monument to a stable condition.

Elevations and sections were drawn within the Belvedere, recording the nature and current condition of the structure. The relationship between the Belvedere and the spiral pathway was established through hand-excavation of a test-pit at the front of the Belvedere. On the north-west face of the mound, a section of an exposed scar was drawn, recording the profile and structure of the mound at this level. No excavation of *in situ* mound material took place.

Marlborough College New Music School (SU 18 68); Medieval and Post-Medieval

The site of the new Music School lies on the south side of the Mount, the remains of a motte-andbailey castle which may have had its origins as a prehistoric monument. Both the motte and the former base court (lower bailey) to the south were subsequently refashioned to form a formal garden in the 18th century. The new building occupies the area of the former College swimming pool, developed from a watercourse which had originally been the castle moat, later to become an 18thcentury water garden feature. An archaeological watching brief undertaken intermittently by AC archaeology observed the demolition of the pool base and associated buildings, and the excavation of foundations and piling for the new structure. No archaeological features or finds were observed, only modern (disturbed) horizons surviving above the waterlogged levels.

Waitrose Supermarket, High Street (SU 1885 6905); Post-Medieval

An archaeological watching brief was undertaken by Wessex Archaeology during ground works associated with the construction of an extension to the Waitrose supermarket. The site provided an opportunity to examine the nature of tenements fronting on to the High Street and associated with the medieval development of the town. Observations recorded evidence of pits and a ditch, showing that the site lay to the rear of the tenements which had been laid out along a gravel terrace of the River Kennet. The archaeological features were probably of post-medieval date, suggesting that the street was well developed by that time, although

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the observations were unable to establish a date for the initial occupation of the site. Deep soil deposits containing post-medieval material were recorded along the flood plain, suggesting that small-scale cultivation probably followed the management of the river channel in the 18th century.

Mildenhall

Former Post Office (SU 2095 6965); Post-Medieval An archaeological field evaluation was carried out at the former Post Office by AC archaeology during January 2001. The evaluation comprised the machine-excavation of two trenches within an area of garden close to the present street frontage. No subsoil features were present. A single sherd of postmedieval pottery was recovered from the topsoil.

Preshute

Sharpbridge, Temple Farm, Rockley (SU 1427 7462); Modern

An archaeological field evaluation was carried out on the site of two proposed dwellings at Sharpbridge, Temple Farm, by AC *archaeology*. The site is situated in an area of Bronze Age landscape and within one of the many field systems associated with small agricultural settlements of this date. The evaluation comprised the machine-excavation of a single trench, amounting to a c.3% sample of the site. The trench revealed ploughsoil directly above natural chalk, with no subsoil features or deposits of potential archaeological interest present. No artefacts of modern or earlier date were recovered from the spoil heaps.

Salisbury

Belle Vue Bus Garage, Castle Street (SU 1445 3045); Post-Medieval

Wessex Archaeology was commissioned by the Wilts & Dorset Bus Company to under take a watching brief during groundworks associated with the construction of a new workshop at the Belle Vue Garage, Castle Street. The watching brief was maintained during the excavation of a construction trench for the foundations of a new 3-bay workshop. The only potential archaeological feature identified during the course of the watching brief was a possible pit that contained post-medieval pottery and brick. 21A Highfield Road (SU 1334 3074); Iron Age An archaeological evaluation was undertaken by Wessex Archaeology in connection with a planning application to redevelop land at 21A Highfield Road, Salisbury for residential purposes. The site was thought to lie partially within an Iron Age settlement which had been recognised and investigated in the 19th century. A single machineexcavated trench along the main axis of the development site located the main enclosure ditch towards the southern end. The 'V'- shaped ditch, which had silted naturally, measured 4.4m across and was approximately 1.9m deep. Large quantities of domestic refuse were found in the upper fills. The Middle Iron Age date of the enclosure ditch was confirmed. The ditch had been recut on a slightly different alignment, with steep sides and a flat base. This could have occurred during the Romano-British period. A small number of contemporary features were also identified within the enclosure, probably as a result of settlement in this area. Only one feature, a small gully, lay outside the enclosure.

Endless Street (SU 1450 3050); Medieval and Post-Medieval

CAT was commissioned to undertake an evaluation at numbers 38-44, in advance of proposed residential redevelopment of the site. The machine excavation of the evaluation trenches identified the walls and floors of a probable medieval building on the Endless Street frontage. To the rear (east) of this building deep cultivation soils were identified together with a tenement boundary ditch, orientated north/south. A sherd of medieval pottery was recovered from the primary fill of this ditch. All features were disturbed by post-medieval and modern features.

Former Anchor Brewery Site, Gigant Street (SU 1470 2987); Medieval and Post-Medieval

Wessex Archaeology undertook the excavation of $c.180m^2$ of land along the western side of Gigant Street as part of a phased programme of archaeological work undertaken in advance of proposed residential development in this area.

The excavation produced a variety of evidence for the occupation of the Gigant Street frontage from the 13th century to the present day. This included ground preparation activity associated with the initial development of the city of Salisbury in the 13th century, and also structures that predated the formal street frontage. The subsequent medieval and post-medieval phases were dominated by the construction, use and re-modelling of the late 13th century street frontage. There is evidence for both domestic and industrial activity, representing an important addition to our knowledge of the archaeology of the town.

Old Sarum Bridge, Old Sarum Castle (SU 3800 2700); Medieval and Post-Medieval

Wessex Archaeology was commissioned by English Heritage to produce a structural record of the bridge footings at Old Sarum Castle, in advance of renovation work. The footings of the bridge lie on the east facing (inner) slope of the moat that surrounds the Norman castle. Documentary evidence shows the bridge was excavated between 1918 and 1930, prior to the construction of the modern footbridge. Records of this excavation do not appear to survive, though a plan drawn up in the 1920s shows three phases of bridge footings in the area of the existing masonry. Records also indicate that this masonry was consolidated (and possibly partially rebuilt) prior to display. Comparison with the 1920s plan indicates that the structure is little altered (at least in terms of its outline) since it was excavated, the exception being the central part where one section of wall is missing and another has been partially covered over. This probably occurred during alterations to the modern footbridge.

The remains were originally interpreted as bridge footings. A re-evaluation of the evidence suggests that the western section may be the base of an outer gatehouse, built to house the drawbridge pit and winding mechanism. The rest of the masonry is interpreted as forming piers for the bridge.

The Bakehouse, Old Sarum Castle (SU 3800 2700); Medieval

Wessex Archaeology was commissioned by English Heritage to undertake an archaeological investigation of a depression within the 13thcentury bakehouse. The circular depression formed overnight following a prolonged period of watering and heavy rain in the summer of 1999. It measured c.1m in diameter and 0.2m deep (from the level ground surface), with a further 0.5m of 'spongy' ground immediately surrounding. Situated towards the centre of the bakehouse, it lies to the south of the main entrance to the inner bailey.

A single 3 x 3m trench centred on the depression was excavated by hand. The excavation revealed a compacted chalk layer (possibly the bakehouse floor), several post-holes and part of a rectangular structure, thought to be one of the ovens, all previously recorded in 1911 by Colonel Hawley. The floor and rectangular structure had both partially subsided into the depression. It was concluded that the depression may have been caused by backfill material within an earlier well shaft subsiding. The well shaft was excavated to a depth of 1.2m (to the top of the consolidated fill), and measured c.2m in diameter. An auger survey carried out as part of the excavation revealed that the well shaft did not exceed the original hillfort ground surface, a depth of 5.85m from the present ground level. The well is undated.

Shrewton

The Catherine Wheel (SU 0685 4385); Post-Medieval and Modern

An archaeological field evaluation was carried out on the southern side of the car park belonging to the former Catherine Wheel public house, Shrewton, by AC archaeology. The site is situated near the junction of the A360 (Maddington Street) and Shrewton High Street (SU 0685 4385), and is considered to lie within one of the clusters of medieval settlement which now form the modern village of Shrewton. The evaluation comprised the machine-excavation of two 1.6m wide trenches totalling 15m in length. One revealed extensive evidence for post-medieval/modern activity, whilst the other included the foundations of a brick-built building, also of post-medieval date, overlying river valley deposits. No earlier finds were present.

Uplands and Sunnyside, Chalk Hill (SU 070 434); Modern

An archaeological field evaluation was carried out on the former site of Uplands and Sunnyside, Chalk Hill, by AC archaeology. Evidence from early maps show the site to lie between the settlements of Maddington, Rollestone and Homanton. The evaluation comprised the machine-excavation of a single trench, amounting to a 2% sample of the site. The trench proved negative, with no subsoil features or deposits of potential archaeological interest present. No pre-modern finds were recovered from the spoil heaps.

South Marston

Primary School (SU 1942 8792); Medieval and Post-Medieval

A large oval landscape mound in the grounds of the school was investigated by Bernard Phillips following an application to build an extension. It was found to overlie ridge and furrow, and pottery and building material indicate that it is of late 19th century date.

South Newton

Camphill Reservoir (SU 1102 3365); Prehistoric An archaeological watching brief undertaken by AC archaeology observed the construction of a new access road at Camphill reservoir north of Salisbury. No archaeological features were encountered due to the shallow ground-workings. Small quantities of burnt flint were noted on and around the present development but no other pre-modern finds were present.

Steeple Langford

'Blagdon', Hanging Langford (SU 0340 3709); Medieval

An archaeological watching brief was carried out by AC archaeology during foundation trench excavations for a new house and associated garage at the site of 'Blagdon', Hanging Langford. Inspection revealed the site to have been heavily terraced. However excavations did reveal the truncated remains of one sub-circular feature which yielded six 14th century sherds. The feature was not bottomed and was tentatively interpreted as a well. No other archaeological features or deposits were uncovered by the trenching.

Swindon

Abbeymeads (SU 14478960); Roman, Anglo-Saxon and Medieval

Between September and October 2000 CAT carried out an evaluation consisting of 31 trenches at Abbeymeads, Groundwell West. Several trenches contained features, later investigated by open-area excavation, which proved to be of geological or natural origin. However, a trackway of possible Romano-British date was also found, the alignment of which suggests that it may connect the site of a known Romano-British complex to the south of the site with Ermin Street to the north-east.

During the Anglo-Saxon period part of the site was used for burial. At least four (and possibly six) graves were identified, with four different alignments. One of the graves contained a pin, a small mount inset with a gemstone, and a lace tag. Medieval quarries were also identified.

Kingsdown Crematorium (SU 1740 8905); Palaeolithic, Mesolithic, Neolithic, Bronze Age, Romano-British, Medieval and Post-Medieval Archaeological field walking was undertaken by Bernard Phillips following an application to extend an existing burial ground. Prehistoric occupation is evidenced by Upper Palaeolithic, Mesolithic, Neolithic and Bronze Age flintworking waste, flint tools, including arrowheads, scrapers and knives, and a few pottery sherds. Later activity is demonstrated by Romano-British, medieval and post-medieval sherds.

Tidworth

Tidworth Garrison Golf Club (SU 221 476); Post-Medieval

An archaeological watching brief was undertaken by Wessex Archaeology during topsoil stripping at Tidworth Garrison Golf Club in advance of the construction of a new car park. The stripped area of 1920m², revealed a slot containing brick and postmedieval pottery, which was cut into a surface of unbedded chalk bedrock with frequent patches of silty clay loam. It is likely that these are the natural product of the solution of the chalk, or may result from the removal of trees and scrub.

Tisbury

Old Wardour Castle (ST 938 263); Undated

Wessex Archaeology was commissioned by English Heritage, South West Region, to undertake an archaeological watching brief at Old Wardour Castle. The watching brief was required as a condition of Scheduled Monument consent for the construction of a new temporary shop to replace the old ticket office. The new temporary shop lies to the north of the ruins within the bailey, close to the curtain wall. The hand-excavation of six small square foundation pad trenches and one larger service trench, the machine-excavation of another larger trench and ground disturbance caused by vegetation clearance, were observed.

Mixed topsoil and overburden was found to overlay a sandy silty clay deposit in most of the trenches. This deposit appears to have been introduced to raise the ground level in the bailey. An undated, possible linear, feature was observed in the base of one of the foundation pad trenches. A deposit of greensand and brick rubble was observed in the hole created when vegetation was cleared. This rubble may have been used as hard core for a path when the monument was surrounded by formal gardens.

Upton Lovell

Upton Lovell G2a (ST 9586 4277); Early Bronze Age

The Upton Lovell G2a Early Bronze Age barrow was originally excavated by William Cunnington in the early 1800s. The material from the grave is currently on display in the Wiltshire Heritage Museum. Although subsequently ploughed out, and recently de-scheduled by English Heritage, the site was successfully relocated in 1999 using aerial photographs and geophysical survey. The associated topographical survey established that the site does survive in the landscape, however minimally. This was confirmed by field observation.

Re-examination of a stone burnisher from the grave group, identified by Stuart Piggott as including a metalworker's toolkit, had confirmed the presence before its burial of traces of gold of a similar composition to objects found in contemporary Early Bronze Age barrows (Shell 2000). The purpose of the re-excavation was to investigate whether Cunnington had typically left the skeletal material in the grave, and, if so, to recover it and any other material in order to obtain radiocarbon dating evidence and carry out chemical analysis to establish the extent to which the individual may have been involved in bronze metalworking.

The excavation consisted of two small trenches and an overall surface scrape, the latter to investigate magnetic anomalies identified in the geophysical survey. The larger of the trenches was positioned to investigate the grave area, the other to examine the ditch.

Cunnington had, characteristically, left the skeletal material in the grave pit. There was some human bone present scattered in the lower fill, though to which of the two skeletons recorded by him as being present this belongs awaits the detailed analysis. The re-examination of the grave provided an interesting insight into Cunnington's respect for the human remains he investigated. In the northwest corner of the grave he carefully placed the more robust bones, including the skull of what we believe from his description to be the primary burial. Around them was built a small chalk block wall, and the whole was covered by turves before backfilling the grave pit.

The work was undertaken by Colin Shell (University of Cambridge) and Gill Swanton (Bristol University). The small field team included WANHS Field Group members and Bristol University Centre for the Historic Environment students, all working with good humour in less than desirable weather conditions. Mike Allen and Julie Gardiner kindly took samples for palaeoenvironmental analysis, including early 19th century turf – a perhaps rare example of a 'captured' insight into the landscape 200 years ago.

The landowners, the Nevill family, gave permission to excavate, and provided practical support in the form of a site store/personnel accommodation and mechanised assistance in clearing and backfilling the site. The project is supported by a small grant from The British Academy.

Shell, C.A., 2000, Metalworker or Shaman: Early Bronze Age Upton Lovell G2a burial. *Antiquity* 74, 271-2

Warminster

Harman Lines to Imber Clump Road (ST 9004 4674 to ST 9140 4794); Prehistoric

The archaeological monitoring of refurbishment to 1.9km of concrete road between Vedette Post 2 and Imber Clump Weapons Effect Demonstration site was carried out during October and November 2000 by AC archaeology. The existing roadway overlay a previously unmetalled track which had evidently been the subject of considerable disturbance and truncation. The only visible archaeological features were noted in section within a length of cutting, comprising an undated positive lynchet and a probable linear feature containing fragments of later Bronze Age pottery. The improvements formed an extension to the Southern Range Road construction programme and will be incorporated in the archaeological report for those works currently under preparation.

Westbury

Former Old Clinic, Edward Street (ST 873 513); Medieval and Post-Medieval

An archaeological field evaluation was carried out on the former clinic site at Edward Street by AC *archaeology*. Adjacent sites have previously encountered significant evidence for medieval activity. The evaluation comprised the machineexcavation of three trenches positioned north, west and east around the existing building, revealing recent made ground overlying a buried soil horizon of probable medieval date. No subsoil features were present. A small number of artefacts of medieval and post-medieval date, principally pottery, were recovered from both the re-deposited layers and buried soil horizon.

Wilton

Fountain Site, Wilton House Millennium Project (SU 1006 3006); Post-Medieval

Wessex Archaeology carried out an archaeological watching brief during the construction of a small fountain and service connections within the landscape garden of Wilton House. The garden is Grade I Listed in English Heritage's 'Register of Parks and Gardens of special historic interest in England'. Evidence of landscaping was revealed, along with probable foundations of 17th-century garden features and a 20th-century wall. The shallow depth of wall foundations, just 100mm below the gravel of the main pathway, is suggestive of substantial landscaping and levelling of the area, which may relate to 18th century work to form an open parkland style garden.

Pembroke Arms Hotel (SU 0984 3117); Post-Medieval and Modern

An evaluation was undertaken by Wessex Archaeology on land just to the north of the Pembroke Arms Hotel, between two streams. It lies within the medieval settlement of Wilton, and just beyond the probable edge of the important Saxon town, the site of a Royal Palace and Mint. Two 1m wide trenches with a total length of 6m were excavated mechanically at either end of the proposed development site. Alluvial deposits, approximately 1m or more in thickness, lay just over 1m below the present ground surface. These deposits produced a single sherd of 13th- or early 14th-century pottery, and were sealed by madeground which contained finds of 17th/18th and 19th/20th century date respectively. The evidence recovered suggests that the evaluated area was lowlying marginal ground in medieval times and was reclaimed by dumping soil and raising the ground level in the late post-medieval period. No evidence for any Saxon activity on the site was found.

Wroughton

Brimble Hill (SU 1558 8028); Saxon

Excavation by Bernard Phillips and Peter Hyams, following metal detector finds, revealed two late 6th century burials in a ploughed field. One grave

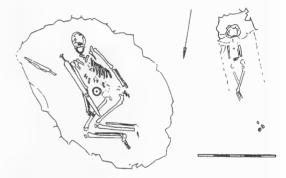


Fig. 2. Wroughton: Saxon burials (scale 1m)

containing the remains of a child cut the grave of an elderly adult male. Associated with the former were a pair of large gilded saucer brooches and two beads, one of amber and the other of glass. The adult burial was accompanied by a sword, two spears, a shield boss and a small buckle (Figure 2).

High Street (SU 1435 8025); Modern

An evaluation undertaken by CAT revealed only modern deposits.

Reviews

Ludgershall Castle: Excavations by Peter Addyman 1964-1972. Compiled and edited by Peter Ellis. Wiltshire Archaeological and Natural History Society Monograph Series 2. ix + 268 pages, 235 figures and maps 7 microfiches, 19 tables. ISBN 0 947723 07 2. Price: £20.00.

This monograph presents the results of excavations carried out on the site of the royal castle and hunting lodge of Ludgershall between 1964 and 1972, alongside a new survey of the site and its environs conducted by the Royal Commission on the Historical Monuments of England in 1998. Bringing together these two quite different data sets clearly presented a major challenge of synthesis. But despite the somewhat long and tortuous process of the report's completion, including particularly severe delays in the post-excavation programme, it is to the immense credit of the editor that the final monograph is, on the whole, comprehensive, highly readable and attractively presented. Furthermore, it is refreshing to see that uncertainties about the evidence and unresolved aspects of the site's chronology (the twelfth-century phases are particularly problematic) are acknowledged freely and discussed honestly, in particular within the conclusion. Overall, the combination of large-scale open area excavation within the defensive perimeter of the site and detailed topographical survey of the zone beyond makes for fascinating reading and highlights some interesting new ways of understanding the place of castles within their landscape settings.

Following an introduction, Chapter 2 contains a useful summary of key documentary sources, including a discussion of the building accounts of 1341-3 that are translated in full on microfiche. The core of the excavation report is presented in Chapter 3. The emphasis of the excavation strategy was on the sampling of the interior of the site's northern and southern enclosures rather than its formidable earthworks, and the thrust of this part of the report

is on the castle's domestic arrangements rather than its fortifications. A centrally placed great hall, flanked to the north by a progressively enlarged suite of domestic structures and the great tower, dominated the layout of the northern enclosure from the twelfth to the fourteenth century. Occupation within the southern enclosure was of an entirely different character, with evidence from various phases of a substantial limekiln, a lime slaking pit and a building containing a large oven, although the space appears to have been cleared and redesigned as a small ornamental garden in the site's later phases. Chapter 4 by David Stocker combines skilful analysis of above-ground evidence and excavated remains in a study of Henry III's Great Hall and the ruined great tower. Chapter 5, by Paul Everson, Graham Brown and David Stocker, describes the results of the detailed topographical survey of the castle earthworks and provides a fascinating and innovative account of the castle's setting and its inter-relationship with the medieval and later townscape. A detailed and well presented finds report comprises Chapter 6 and a final discussion and handy summary of the site's development Chapter 7.

A word must also be given to the superb colour illustration by Peter Dunn that enlivens the report's front cover. A bird's eye view that looks beyond the castle's defences to emphasise the site's place within its contemporary landscape, this illustration encapsulates nicely some of the report's main strengths. This is far more than a report of a 'castle excavation', but a study that also has an important contribution to make to landscape studies. Of particular significance is the fact that Ludgershall Castle can now be added to the growing list of castles and other élite medieval residences known to have been accompanied by ornamental landscapes purposefully designed for aesthetic effect, such as Bodiam (Sussex). A crucial difference is that the designed landscape created around Ludgershall Castle by the end of the twelfth

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century did not include water features. Rather, part of the north enclosure's unusual outer bank appears to have functioned as a garden walk or viewing platform from which the surrounding parkland, into which the castle projected, could be admired. The castle was also closely linked to the evolving medieval townscape. Painstaking analysis of the town plan shows that a small borough was initially founded and grew under the shadow of the royal castle, until an expansion of the king's park over part of the settlement in the middle of the fourteenth century prompted a major reorganisation. These observations open up many exciting new possibilities for understanding the settings of other Wiltshire castle sites and, in particular, their interrelationships with deer parks, settlements and garden features. For instance, while it is well understood that the earthwork remains of Norman castle sites such as Downton and Marlborough were redesigned as garden features in the post-medieval period, we may now seek to speculate whether these or other sites were components within designed landscapes of far earlier date.

The report will also doubtless be of interest to readers of this journal for the contrasts it highlights with comparable sites elsewhere within the county, of which perhaps the most obvious is Clarendon Palace. Particularly intriguing is the manner in which the domestic planning of royal quarters at Ludgershall reflected greater pressure on space due to its massive enclosing earthworks. In addition, the report provides a rather sobering reminder to the fieldworker that the surviving earthwork remains of castle sites, if examined in isolation, can give very little idea of the complex and multi-phase nature of occupation within defensive perimeters. At a more general level, the report also has much to tell us about the changing priorities of castle studies. Envisaged in the 1960s as an excavation designed to examine castle origins and establish a secure sequence for the development of an earth and timber and then stone castle, the focus of the project has changed to examine the site in a far more holistic manner. Indeed, the report provides very little evidence for the earth and timber fortifications of the site in its earliest phases. Unlike Trowbridge Castle, the other prominent example of a Wiltshire castle excavated in recent years, there is no pressing evidence that the Norman castle at Ludgershall was developed from an earlier Saxon manorial centre. This is not to say, however, that Ludgershall Castle was built on a site with no earlier occupation, as the RCHME survey suggests that the southern enclosure originated as a prehistoric hillfort whose defences were reconditioned by the first castle builders and to which the northern enclosure was added. In sum, this important volume has much to offer the reader with an interest in the medieval landscape of Wiltshire as well as those enticed by the subject of castles, and will certainly provide the stimulus for new discussions and debates.

OLIVER CREIGHTON

Richard Durman. Classical Buildings of Wiltshire and Bath. A Palladian Quest. Millstream Books, 2000, 208 pages; 187 black and white illustrations (line and photographic). Price $\pounds 25$, hardback, ISBN 0948975601.

This is an important book which puts the architecture of Wiltshire (and the Bath area) of the 16th to the 19th centuries in its international context. Bath itself and the country houses of Wiltshire have received a good measure of attention from previous writers but it is good to see them brought together and considered along with the many fine town houses of our county.

Richard Durman writes lucidly. We are told that he worked for many years as a local government lawyer and administrator and that he was formerly a Legal Member of the Royal Town Planning Institute. His long interest in buildings and architecture is evident and since retiring he has become a Blue Badge Guide at Salisbury.

The book starts with the significance of a number of Wiltshire great houses in the early development of Palladianism in England. This is followed by a series of chapters mainly covering the developments at Bath. Finally there is a return to more Wiltshire examples. Proportion is all important in Classical buildings but taste and judgment also come into play and the success of a design is a matter of opinion. On many occasions Mr Durman is confident enough to offer us his view. The development of Classical architecture in this country is closely linked with the rise of the professional architect as distinct from the master mason or carpenter. For most of the larger buildings, the name of the architect is recorded. Where the architect is not known for certain, there is often speculation on stylistic grounds about who might have been the designer. In this the author is on the whole wisely cautious. He does suggest similarities between Widcombe Manor House and

42 Cricklade Street, Swindon but a Bath school of carving may be involved in each case. Only historical research can finally resolve such matters. The book's illustrations remind us of the sheer craftsmanship of the masons who carried out the plans, for example when constructing The Circus at Bath with its three tiers of double columns and its carved frieze. The point is made that houses in the London Road were designed to look good at the rear as well as the front which was unusual in the city. We are reminded too that John Wood the Younger was designing Salisbury Infirmary in 1766-7 at the time when the Royal Crescent was being built at Bath. Very few mistakes occur. It is odd perhaps to place Hartham Park near Biddestone when it is usually associated with Corsham. On page 168 Crittleton should be Grittleton.

This is in all a welcome and reliable guide to local buildings in the Classical tradition, not only houses but also buildings with a variety of functions. It is exceptionally well illustrated and will give the reader a permanent source of valuable pictorial material.

PAM SLOCOMBE

Salisbury and South Wiltshire Museum. Medieval Catalogue Part 3, Edited by Peter Saunders. Salisbury and South Wiltshire Museum 2001, 272 pages, 88 figures. Price £24.93.

This is a worthy successor to parts 1 and 2 of the Salisbury Museum Medieval Catalogue, which were published in 1990 and 1991. It covers nine categories of Medieval object - artefacts made from bone, antler and ivory; glass vessels; enamels (admittedly only two items, however); papal bullae; cloth seals; artefacts made of lead/tin alloy, including tokens; balances and weights; pottery, tile and brick; and finally jettons or casting counters. The catalogue of objects in each section is preceded by an up-to-date and authoritative historical introduction which is informative and helpful in putting the objects in their general context. The authors are leading specialists in these different fields coming from the museum, archaeological and numismatic worlds. It is a pleasure to note that some of the authors such as David Algar, Rachel Tyson and John Musty have a closer association with Wiltshire. The volume begins with an appreciation of the life and career of Eleanor Saunders (1948-1992) who undertook much of the preparatory work of the catalogue and was the coeditor of parts 1 and 2. The illustrations are by Nick Griffiths.

Over 1,000 objects are catalogued in the volume and over 650 illustrated or photographed, many for the first time. The greatest proportion come from the city of Salisbury itself or from the major nearby Medieval sites, notably Old Sarum and Clarendon Palace. Together the chapters contribute to the picture of the material culture of the city and everyday life there in medieval times. There are many particularly important and striking individual items, including the Limoges crucifix from near Mompesson House, the reliquary figure (provenance not given) and a walrus ivory chessman from Ivy Street, Salisbury in the form of a king on horseback. These are among the outstanding medieval objects to have survived from Wiltshire. Similarly the collections of some classes of objects, including the glass vessels (from Old Sarum, Clarendon Palace and the Franciscan friary at Salisbury), the cloth seals (mainly from Salisbury) and the pottery (from a wide range of sites, particularly Old Sarum, Clarendon Palace and Laverstock Kiln) are of much more than local or indeed regional importance.

There are a number of unexpected objects or groups of objects in the catalogue. They include a small group of medieval toys, including some marbles from the excavations at Old Sarum and Clarendon Palace. Marbles are extremely rare and unusual medieval finds. As the text stresses, no examples were found in the extensive excavations at Winchester. A small number of buttons are interesting and useful additions to the still thin corpus of medieval buttons so far identified from England. Pride of place – by no means the correct phrase to use - must go to a group of very unusual semi-pornographic tokens. If these could be confirmed as locally found, they shed light on the city and the mores of its inhabitants not revealed from other sources.

The volume will be essential to a wide range of users. These include local historians, for whom, for example the chapter on cloth seals represents essential primary evidence for the highly important cloth industry centred on the city in the Middle Ages. Archaeologists, whether professional or amateur, will find many of the sections invaluable, in particular of course that on the medieval pottery, tile and brick. Museum curators and finds recorders will find the authoritative identifications, classifications and descriptions of collections such as the chapter on jettons invaluable to them both

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in understanding and cataloguing their own collections and in answering public enquiries. Perhaps above all, however, general readers in Wiltshire will enjoy the insight which this (with the earlier volumes) gives into daily life in South Wiltshire in the Middle Ages.

The volume was prepared and published with the aid of a grant from the Designation Challenge Fund. The size, scope and quality of the Salisbury Museum collection and the form of its presentation in this catalogue show that this aid was well merited.

PAUL ROBINSON

John Chandler. Marlborough and Eastern Wiltshire: Wiltshire A History of its Landscape and People 1. Hobnob Press, 2001, xiii, 274 pages; illustrations, maps; Price £20.00, hardback, ISBN 0 946418 07 1

The appearance of this book, the first of a planned series of eight, marks, to paraphrase Churchill's words, both the end of the beginning and the beginning of the end of a journey of research into the history of Wiltshire by the author which he began in 1984. This bold project will comprise thumbnail sketches of each modern civil parish with a final volume being a synthesis of a 'making of the Wiltshire landscape'. The author's aim is, in his own words, to 'explain the surroundings and humanize the past'. Judging by the high standard of this volume the project will be of major importance for Wiltshire studies.

This book covers the 34 parishes comprising the Marlborough Downs, Savernake Forest and the Kennet and Upper Bourne valleys. From Avebury to Buttermere and Tidworth to Aldbourne. Each essay has an excellent illustration by Michael Charlton capturing an impression of the place. Furthermore each has a map based on the 1890 Ordnance Survey one inch to one mile series with the particularly neat technique of highlighting by background shading.

Landscape and topography predominate in each essay, which is right since they are the bedrock of local history. The origins of boundaries, settlements and place-names and the development of routes by water, road and rail are succinctly discussed incorporating the latest archaeological research drawn both from unpublished reports and published articles. Historical research is drawn heavily from the Wiltshire Victoria County History

as it should (only one parish in this book awaits treatment by the V.C.H. and that one will appear in the next Wiltshire volume). The reader is provided with an excellent synthesis of current thought. However there is much more to this book than that: it is by no means a derivative pot-boiler but offers much more substantial and satisfying fare. For the text is full of original research and ideas developed by the author over the many years of the project's gestation. These are expressed with such clarity, simplicity and enthusiasm that the reader is presented with quite sophisticated concepts which can be easily assimilated and thereby are made widely accessible. First and foremost John Chandler is an excellent communicator, able to engage his audience and hold its interest while he presents his well reasoned thoughts on the county's history.

He sees this series as occupying the middle ground between the academic and excellent Victoria County History project and the more anodyne general and local histories. The real legacy of this ambitious project might well be to raise the standard of the latter works, bringing them up to the ground occupied so securely by himself. Wiltshire historians have never had a better example to follow and, hopefully, will take full advantage of the opportunity offered.

STEVEN HOBBS

Rex Sawyer. Little Imber on the Down: Salisbury Plain's ghost village. Hobnob Press, 2001, 168 pages; photographs, map. Price £12.50, hardback, ISBN 0 946418 06 3

On reading Rex Sawyer's fascinating book on Imber I was reminded of my own first visit to the village. In the late 1940s an aunt of mine, an Imber native, obtained an entry pass. Most of the buildings were then still standing, though some were missing doors, windows or parts of roofs. The most lasting impression on me, as an eight year old, was the total emptiness of the place and this was the image that the word Imber brought to mind long after. This book has done much to dispel that image, for the community that Rex Sawyer depicts is lively and close knit, welded together by its relative isolation.

Drawing on written sources and, most importantly, the recollections of surviving inhabitants, the author traces what is known of the development. In particular he gives a deeply interesting picture of the village, its inhabitants and their lives in the nineteenth and early twentieth centuries. This was not to last and the story of the eviction and dispersal of the villagers is told with feeling. This, however, was not the end of the story and the last part of the book chronicles the post war campaigns for the reinstatement of the village and the various reunions of the surviving villagers. The remarkable number of photographs, assembled in the book, add faces to the names and depict the variety of village life, its work and its leisure. The village economy was founded on farming and most of the working population was directly employed on the land. Other crafts, such as the blacksmith, the carpenter and the boot maker, were also dependent on agriculture. An old craft, important on the downs, was the dewpond maker. There are photographs of school and church groups and of village celebrations such as the coronation of George V.

It would be very easy to paint an over rosy picture of village life. Rex Sawyer does not fall into this trap, he shows the other side as well. He talks about the dangers and hardships of an isolated community; the story of the robbery of Matthew Dean and subsequent events is well known. There was also the continuous threat of flooding which caused great distress in the lower parts of the village. Another concern was the uncertain nature of farming, in particular the agricultural depression of the later nineteenth century meant that many men had to leave the village to find work and this started a decline in the population that continued till the evacuation.

Of course the saddest parts of the book concern the eviction and dispersal of the villagers. Given only 47 days notice many of them left believing they would return after the war. Perhaps their attitude is summed up by a part of a quotation from one of them, 'I know that it sounds silly now that we left so willingly, but then we thought we might be helping win the war.'

However they were not to return. The military authorities claimed a continuing need for the area. This led, in the fifties and sixties to a campaign, for the reinstatement of the village and the preservation of rights of way, in which a leading part was played by the late Austin Underwood. This was mainly unsuccessful and the villagers were left only with access to the church for an annual service.

This is a book which needed to be written while there were still memories to draw upon. Rex Sawyer has done a great service both to those of us whose knowledge of Imber life came secondhand, from older relatives, and to remind future generations, who may not even be able to find Imber on the map, that for over thousand years it was a living community.

BRIAN LAWRENCE

Stephen Palmer. The Microlepidoptera of Wiltshire. Published by the author 2001, 234 pages; Price £15.95, paperback, ISBN 0 954057 60 0.

Baron Charles de Worms published his Macrolepidoptera of Wiltshire in 1962, after an intensive personal survey of the county's larger moths and close perusal of much the same sources as used in this book. He lived in Surrey. In his Introduction he recorded that Wiltshire was a rich county for a large proportion of our Macrolepidoptera and it was to be hoped that at some not far distant date a work on the even greater number of the Microlepidoptera would be undertaken.

Now Stephen Palmer has achieved this, although living in the county for only ten years and using sources less substantial than de Worms. The number of people living in Wiltshire able to identify more than a handful of micros can be counted on the fingers of one hand.

It is an essential handbook for anyone interested in the moths of Wiltshire and follows in the footsteps of many similar lists for other counties. Except for the cover, there are no illustrations, which might come as a surprise, but would have radically affected the costs. There are 234 pages, the major proportion of which is the systematic list of the species with a series of charts at the end showing their distribution within each 10 kilometre square. These latter replace the more usual dot maps, which the author rightly concludes would have very little meaning at this early stage of recording in the county; very common moths should be recorded in every square and probably every tetrad in the county. Dot maps tend to show those areas where microlepidopterists are most active rather than the true nature of distribution. The author's tables demonstrate concisely those areas where recording needs to be concentrated.

The introduction includes a useful series of paragraphs on conservation, species of conservation interest in Wiltshire and a survey of the microlepidopterists in the county. In the main text the status of each species is listed separately under each Vice-County heading (Wiltshire is divided into two Watsonian Vice-counties, VC7 and VC8) using

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the customary terms such as common or scarce. Local food plants noted are those recorded in Wiltshire, and a span of years between the first known and the last known record is given.

Of the approximately 1550 species of micromoths in Britain, members of five families were included in de Worms' work, yet this book includes records of around 880 species, a very creditable figure for a county with a low number of regular students of the microlepidoptera over the years and large areas of countryside under intensive agricultural practices.

The author writes that, although no positive data are to hand, it is more than likely that the loss of species, owing to changes in agriculture and urban development, significantly outnumbers the gains across the county. It is certainly the case that many species are much less widespread and common than previously, and when someone comes to update the Macrolepidoptera of Wiltshire the same situation will be found to have occurred, even since 1962.

Stephen Palmer lived in the county for only ten years and brought his researches to a conclusion and prepared his publication after leaving for Lancashire in 1993 - a very commendable achievement.

JOHN d'ARCY

Pamela Slocombe. Wiltshire Town Houses 1500 – 1900. Wiltshire Buildings Record, 2001, 112 pages, photographs, drawings. Price $\pounds 6.00$, paperback, ISBN 1 903341 75 0.

Wiltshire is a county of small towns but is also well known for the rich variety of its domestic architecture and these two aspects of life in the county are interestingly brought together in book 4 in the Wiltshire Buildings Record series. The format for the new book follows the pattern of the previous three and is thus instantly recognisable to those familiar with the series. Once again, the book is packed with detailed information, accompanied by numerous illustrations and photographs, providing an intriguing picture of town houses across the county.

Town houses are often subject to change, either from economic forces or architectural fashion, a point which is clearly revealed in this publication. The inclusion of an introduction to development in towns and the layout of plots and streets provides a much needed reminder of the significance of these historic elements and gives meaning to features which are sometimes difficult to understand. It is not an easy task to cover the period 1500-1900, especially as the status of settlements changes and a number of buildings will have been replaced or significantly altered. Indeed, it is this alteration of the town centres that makes this book especially valuable both for the record that it provides and for the explanation of the historical development process.

Within the county Salisbury contains a remarkable cross-section of town houses and, although information from Salisbury in this book is relatively limited, the Further Reading list includes reference to the two important publications by the Royal Commission on Historical Monuments on Salisbury City and The Close. In this way the WBR book usefully adds to our knowledge of the County's' buildings rather than repeating information from other published sources. Further study on the subject is encouraged by the reading list and the useful references to other organisations involved in historic building conservation.

Both the student and the visitor will find much to interest them in the Wiltshire towns and their knowledge and enjoyment will be enhanced by the information provided in this book. The Buildings Record and the author, Pamela Slocombe, are to be commended for the efforts which have clearly been made to provide a wide ranging and very detailed picture of Wiltshire town houses. The addition of a full index covering books 1-4 makes it easier for those who wish to learn more about the buildings of Wiltshire to understand the full range and depth of the architecture of the county.

Wiltshire is particularly fortunate to have an enlightened and enthusiastic Buildings Record which now provides a remarkable resource for the researcher and, in its publications, enjoyment for the casual reader.

COLIN JOHNS

A MILLENNIUM MIXTURE PART II

In Volume 94 we considered thirty books which had been published to mark the end of the second millennium. We were aware that others were about to be published and a further ten have now appeared and these will be considered below. It is interesting to note how many of these projects have changed in content, scope and form during the evolution of the work. I was present at the conception, birth or weaning of many of the forty and in every case have seen them grow out of all recognition from the original idea. Most have grown so much that the group may not have started them had they known what the eventual amount of work would be.

Graham Greener and Joanna Clothier. Brinkworth with Grittenham. Brinkworth Heritage Society, 2000, 130 pages; black and white photographs, maps. Price $\pounds 9.50$, paperback, ISBN 0 9539146 0 7.

To some eyes this may seem to be a book of photographs with more text than is usual but this book is much more than that. There are the usual range of subjects but there is also an extensive section on the environment and natural history and an interesting account of footpaths and walks in the parish accompanied by descriptive maps. The book is particularly strong in 20th-century material and greatly adds to our information on two villages which are not well known outside north west Wiltshire.

David Brewer, compiler. Images of a Wiltshire Downland Village: the Parish of Broad Hinton; a collection of photographs from 1900 to 2000. David Brewer, 2000, 195 pages; black and white and colour photographs, map. Price $\pounds 12.50$, paperback.

This is a well produced book of photographs with good and helpful captions which contain useful historical information. The series of pictures on farming is particularly well co-ordinated and to a great extent follow the farming year. Other noteworthy sections include an extensive collection of village houses and a wide range of residents, past and present. Among the houses was the locally named 'Tea Cosy Cottage' which name perhaps should have been used by a resident of Tea Pot Street in Wylye. In all a welcome addition to the collection of old photograph books on Wiltshire parishes.

Calstone Wellington Millennium Project. Calstone Wellington: our village past and present. Calstone Wellington Millennium Project, 2000, 99 pages: photographs, facsimiles, maps. Price £8.00, paperback.

This is the result of two years work by a number of villagers and much of the material used was included in a village history exhibition that the villagers held in March 2000. Although they say that it is not a finished piece of work and that they hope that more information will become available that can be included in a new edition they can be proud of what they have researched and published so far. Besides accounts of the main village themes there is a section on horses, oral history from some of the older inhabitants and a list of houses with

origins, comments and photographs.

Victoria Hutchings and Dennis Barnard. Crocodiles and Chicken Chasers: the villages of Corsley and Chapmanslade. Corsley and Chapmanslade Millennium Book Committee, 2000, 92 pages: photographs, drawings, maps. Price \pounds 7.50, paperback.

The first Wiltshire millennium book written about and by two civil parishes has an intriguing title. The names were bestowed upon each other in past village rivalries of which there are several examples in the county. For the uninitiated Corslev contained the crocodiles and Chapmanslade the chicken chasers. Corsley we know from Life in an English Village by Maud Davies and Victoria Hutchings builds on this valuable source and is deliberately strong on the inter war years and the 1950s. Surveys seem to have been popular in the village for in 1944 the schoolchildren conducted one on the number of cows milked; this included 12 at the Post Office and 85 at Manor Farm. This was one of the few Wiltshire villages hit by bombs and 5 people were killed and 12 houses damaged in April 1944. A topical note was found with the community being affected by a local epidemic of foot and mouth in 1958. Sadly the farmers found that it took three years to rebuild their stock and five years to return to normal.

Chapmanslade gets off to a bad start by displaying a lack of research in printed works and at the Record Office. A myth of the village being settled by Flemish weavers is perpetuated while a statement that no one knows when the village was first called by its name evokes the answer to look in *Place-names of Wiltshire*. This section of the book soon redeems itself and there is good twentieth century material and some useful oral history. The *Chapmanslade Arrow* was printed and published by Harold Dyer, the postmaster and grocer, who built his printing works in the village in 1934; his son has only recently ceased to run the business.

In all this is a very useful book on one village about which we already know a fair amount and another one about which we have previously known little.

Peter Meers. Ebbesbourne Wake Through the Ages. Dial Cottage Press, 2000, 140, xx pages; maps, tables. Price \pounds 9.50, paperback.

The author says that there is scanty information about the village so he has set what there is in a broader context of English history and he invites others to make their own judgement on this. The initial reaction is 'Good', local history should never be viewed in isolation but set in its regional, national and even international setting. The book begins with a helpful geographical section but then moves to a chronology in which the only Ebbesbourne Wake material seems to be local archaeological sites. A very good section follows this on people and places that really needs to be set in the

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chronology. Useful material on the village but research on archival material and some editing would have improved it.

Dorothy Robertson. Etchilhampton: a village portrait. Etchilhampton Village Project, 2001, 64 pages; black and white and colour photographs, maps. No price, paperback.

This a handsome production, which is well designed and surprisingly contains many colour photographs. The history and activities are mainly from the twentieth century and interesting comparisons are made with the village as it appeared in the 1891 census. Typical of most of our villages today only 21 people were born in the parish and there are no resident farm workers. There are interesting sidelights such as the fact that electricity and street lighting only arrived in 1950 and there is some emphasis on current village activities. As a boon for future historians there is a survey of all village properties and a list of their owners.

Arnold Lewis and Neil Mattingly. Limpley Stoke: its church and its people. 2000, 50 pages; illustrations (black and white and colour), facsimiles, maps. Price $\pounds 6.99$, paperback.

This is a highly polished production with good integration of text and illustrations and excellent use of colour throughout. Each page has the appearance of a well designed web page only instead of having to click for more information or illustrations they are already there. The book is an outcome of the exhibition, 'A Thousand Years of St. Mary's and its People', which itself was the result of some years research by the two men. There is much information about families connected with the village while later centuries are covered by maps and census information. Good use has been made of sources in the Wiltshire and Swindon Record Office.

Mere Papers; A Millennial Miscellany compiled by M. F. Tighe. The Friends of the Church of St. Michael the Archangel, Mere, 2001, 33 pages. Price $\pounds 2.00$, paperback.

This is Michael Tighe's fourteenth volume of Mere Papers in only five years, much of the corpus has been reviewed in WAM 93. It is a compilation of those interesting snippets of information, which we all find when researching a different subject, and which often lie around gathering dust for many years. With the laudable aim of not wishing to waste good material these have been put together for a volume celebrating the year of the true millennium, following the example of the good vicar of Mere who welcomed the new century in his parish magazine in January 1901. Here you can read of Mere hairdressers from 1673, the local Dorcas society of the 19th century and the location and use of the fives court among many other pieces of interesting local history.

Roger Crisp (compiler). Newton Tony: a Wiltshire village at the millennium. Wessex Books for Roger Crisp, 2001, 174 pages, photographs, drawings, facsimiles. No price, hardback, ISBN 1 903035 031.

Interestingly each chapter covers a month of the year of 1999 and the events therein which are linked to happenings and photographs from the past. Thus there is a description and picture of the River Bourne, which was three feet deep in January but which had not been seen previously since 1996. Earlier accounts of the river are accompanied by a photograph of the flooding in the 1870s. This is a good idea and the presentation works well but where there are themes running through the year, such as farms or the countryside, one has to look in twelve different places if that is one's subject interest. An amusing section is the comments from schoolchildren in 1999 of what they expect the next thousand years to bring.

Urchfont Parish Millennium Group. Urchfont by any other name. The Urchfont Parish Millennium Group, 2001, 213 pages, photographs, plans, facsimiles, maps. Price $\pounds 9.00$, hardback, ISBN 0 9540851 0 8.

The title of the book comes from the fact that the authors, in the course of their researches, found that the village name had been recorded in 111 different ways over the centuries. It is a very substantial book in a fairly traditional format, well researched with good use made of both primary and secondary sources. The material, which was collected but not used, has been deposited in the Wiltshire and Swindon Record Office for the use of future researchers. There is a great deal in this book that will be useful to students of other villages particularly for comparative purposes. A good example is the chapter, 'Earning a Living', which shows the range of occupations in the village over the years. In the 1570s there was a resident minstrel and storyteller, a 'coalfinder' is mentioned in 1655 while other less usual trades were waywardens, a mealman, a salter and a smuggler. There is much modern information recorded for future local historians and a survey of activities in the parish in the year 2000. Tucked into the rear cover is a leaflet containing the two colour heritage maps on Wedhampton and Urchfont.

MICHAEL MARSHMAN

Obituaries

Maurice Gilbert Rathbone, archivist, died 26 March 2001. He was born 17 January 1917. Maurice was born in Birmingham, and after a grammar school education joined the staff of Birmingham Public Libraries in 1934. In the following year he was appointed to the Manuscripts Section at the Central Reference Library under Cecil H. Thompson.

During the Second World War he served as a clerk in Bomber Command at various stations in East Anglia from 1941 to 1946. He returned to Birmingham briefly, then on 1 January 1947 he became the first County Archivist of Wiltshire, starting so entirely from scratch that, as he would recount, he was on his first morning shown into a room completely empty except for a perpetual calendar, the same one still used in the main searchroom today. He remained in Wiltshire until his retirement in 1981, probably the longest serving county archivist in one post.

During that long period he handled with tact and enthusiasm the many challenges which faced archivists in developing their services. He established links with the dioceses, setting up for Salisbury a separate office in the city, subsequently closed on the removal of the records to Trowbridge. In 1971 accommodation at County Hall had become inadequate, and the records were moved to a converted factory nearby, with search-rooms sufficient for 50 readers at once. This was just in time for the avalanche of records after the changes of 1974; the setting-up of records management systems for both the county and the new district councils followed soon after. An unusual activity which he began was to exercise the powers given to county councils to inspect and supervise the way in which the records of civil parishes were cared for. He compiled a printed Guide to the county's fine series of Ouarter Sessions records.

He was a founder member of the south-west region of the Society of Local Archivists, and was long associated with the work of the Wiltshire Record Society, for which he edited a volume on borough records. He sat on the Society's Council for many years. His staff valued him both as an efficient archivist and as a friendly and considerate chief. He had a long and happy married life; he leaves a daughter and a son and four grandchildren.

KENNETH ROGERS

Alison Mary Borthwick, archaeological consultant, died about 21 April 2001. She was born 8 September 1951.

Alison was born in Chester, and spent her childhood at Tarvin, near Chester, Send near Guildford, and later at Box in north Wiltshire. Her parents had met at art school, but the war intervening they had not pursued careers as artists, and her father John (who predeceased her by less than a month) was in business, latterly as a director of the Bath and Portland Stone Firms. At Stonar School she was inspired by an outstanding teacher, Philip Curnow, to begin her lifelong enthusiasm for archaeology, and she and a friend Richard (now Professor Richard) Hodges, with wonderful teenage precociousness, founded the Box Archaeological and Natural History Society. The society still flourishes more than thirty years on, with her its much-loved president at the time of her death.

From school she went to Birmingham and later to Cardiff University to read archaeology. She dug on the famous BBC excavation at Silbury Hill under the direction of the late Richard Atkinson, and later worked for Brian Philp's Kent Archaeological Research Unit based in Dover. At the start of 1975 she returned to Wiltshire, as assistant to Roy Canham, to develop and run the county council's archaeology service. Nowadays local authorities' archaeological functions are taken somewhat for granted, but then it was all quite new, and for a dozen years she directed excavations, went on aerial photography sorties, helped to create the



computerized Wiltshire sites and monuments record, contributed to planning policy documents, mounted exhibitions, and employed her considerable negotiating skills on hapless planners, developers, and road engineers. It was during these years too that, with her Trowbridge neighbour Cyril Jones, she hatched the idea of residential courses on archaeology for the visually handicapped. The concept was taken up by Mick Aston at Bristol University, and has subsequently ramified, and enriched many lives.

In 1986 she decided to leave the relative security of local government and embark on a freelance career. She became an archaeological consultant, liaising between planners, developers, local authority archaeologists and excavation units. There are many such consultants now, but fifteen years ago this was a pioneering new direction to move in, and she demonstrated not only what a valuable function such people could perform, but also how superbly good she was at it. Unswervingly her first loyalty was to the archaeology itself, and she would defend it with all the vehemence at her disposal. Her work ranged far beyond Wiltshire, to Essex and Kent, the midlands, London, the west country, and into Wales where, near Magor on the Gwent Levels, she was instrumental in arranging for the recovery of a Roman boat discovered during the building of a supermarket warehouse. Among the hundreds of projects with which she was involved were supermarkets, housing estates and road schemes, and some important large-scale surveys, especially

in Hampshire. Her papers as a consultant have now been deposited as a business archive in the Wiltshire and Swindon Record Office.

Away from her business she served on this Society's council from 1993 to 1997, and played an influential role in developing its policy. She was also a committee member and sometime newsletter editor of the Wessex regional group of the Council for British Archaeology, and active in many local societies. Each year she organized a coach outing (the President's outing) for the Box Archaeological and Natural History Society, and they were always memorable and fun.

Despite poor health (diabetes dogged her from teenage) Alison was a tireless achiever, and always exhilarating and hilarious company, sociable and larger than life. But her bubbly exterior belied a deep, thoughtful and caring humanity. On many issues she held the strongest beliefs and campaigned tirelessly, enduring hostility from opponents and long nights tapping away at her computer. She was absolutely sincere and loyal. Her care and love for her parents and family, especially for her mother during the dark months of her father's final illness, was unstinting.

She married in 1986 John Chandler, and they lived first at Gastard and from 1991 at East Knoyle, where she was to make many close friendships. Among many other village activities she created a pictorial map of East Knoyle in 1994 in aid of the church (she was a talented artist). She and John separated in 1998 but Alison continued to live in the village, in the converted Sunday School where she also carried on her consultancy. It was there that she died, aged 49, the result of diabetic coma. She is buried in East Knoyle churchyard extension. She had no children, and is succeeded by her mother, brother, one nephew and one niece.

JOHN CHANDLER

Graham Webster, archaeologist and authority on Roman Britain and the Roman army, died at Swindon 21 May 2001. He was born 31 May 1913. Dr Graham Webster was the best loved, and probably the greatest, scholar in post-war Romano-British archaeology. Born at Stamford, Lincolnshire, he was educated at Stamford School where his life-long interest in antiquity began. However he trained after school as a civil engineer acquiring a rigorous practical discipline which was of the greatest use as he became involved in

excavation work, at first in the ruins of Canterbury during the Blitz, where bombing was revealing vestiges of the Roman city. His long association with ceramic studies likewise began here where he catalogued the samian ware in the museum. After war service with the Air Ministry in Scotland, constructing aerodromes (and also, incidentally, excavating a late Bronze Age urnfield, a rare excursion into prehistoric archaeology), he turned to Roman military archaeology, making over the years a unique contribution to the subject. In 1946, in a relatively small excavation at Lincoln, he discovered for the first time parts of the remains of the Roman legionary fortress. It was at Lincoln that he met Ian (later Professor Sir Ian) Richmond who was so impressed by him that he was engaged to work at the Roman forts at Newstead in Scotland and Hod Hill in Dorset. Recognition of his status within the subject was marked by his election in 1947 to the Fellowship of the Society of Antiquaries of London.

In 1948 he was appointed to the first full-time curatorship of the Grosvenor Museum, Chester where the Roman Gallery is now named after him. He set about reorganising the internationally important collection of sculptures and inscriptions that had for many years been rather neglected. He was to record that he 'not only transformed the museum but excavated parts of the legionary fortress every year'. He involved the local community as much as possible and with the aid of models of the fortress and of Roman soldiers he attempted to present as good an impression as possible of life in Roman times. It was at Chester that he wrote two important booklets. The first was A Short Guide to the Roman Inscriptions and Sculptured Stones in the Grosvenor Museum, Chester (1950), appearing fifteen years before the national corpus of inscriptions was published. The second, The Roman Army, (1956) was the genesis of his most significant general work, The Roman Imperial Army This book did not appear until 1969, but as has been recently stated by Professor John Wilkes, it was a major milestone in Roman archaeology, the first serious study in English of this important subject, which went through four editions and remains in print to this day.

He found time to work for an MA at Manchester University under his friend, Donald Atkinson, Professor of Ancient History, and he was to follow Atkinson as excavator of the Roman civitas capital of Wroxeter, Shropshire. At this time too he became an inspirational extra-mural teacher both in the classroom and in the field, starting with the Field School he ran with Philip Corder at Great Casterton, Rutland.

In 1954 he became Extra-Mural Tutor in Archaeology at Birmingham University, eventually rising by the time of his retirement in 1980 to Reader in Romano-British Archaeology. During his years at Birmingham he carried out a major project on the Fosse Way frontier which resulted in the award of a PhD which was published as 'The Roman military advance under Ostorius Scapula' in the Archaeological Journal (1960). The university provided facilities for his excavations including the fort at Waddon Hill, Dorset and the villa at Barnsley Park, Gloucestershire. At the latter he met Diana Bonakis, an archaeological illustrator and writer, who came to work with her first husband, the BBC producer and archaeological writer and broadcaster. Leonard Cottrell. The pair separated and Graham married Diana, in what was to become a long and happy partnership.

His work at Barnsley Park (1961-79) provided the first-hand background and evidence required in his timely rethinking of the place of the farming villa in the Romano-British landscape and economy, best expressed in such seminal papers as The Future of Villa Studies (1969). To many, Graham's fame will rest in large part on the great series of summer excavations at Wroxeter which he initiated as a training school over thirty annual seasons (1955-85). Thousands of students passed through his hands and they, both as professional and amateur practitioners, owe him a considerable debt. These excavations are at last being fully published, the first volume written by him and edited by Peter Ellis came out in December 2000 and the second volume is currently in the press. He not only cast a great deal of light on the Roman town but for the first time sampled the deeply stratified layers of the fortress. It was at Wroxeter also, that he engaged in a fruitful collaboration with another great excavator, Philip Barker, and they remained close friends for the rest of their lives.

Graham's interest in the early years of Roman Britain led to the publication with Donald Dudley of *The Rebellion of Boudica* (1962) and *The Roman Conquest of Britain* (1965). These later developed into what has become the classic account of the subject, *Boudica* (1978), *The Roman Invasion of Britain* (1980) and *Rome Against Caratacus* (1981). Later he was to take a particular interest in Romano-Celtic religion and his book, *The British Celts and their Gods under Rome* (1986) shows his empathy

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for the native peoples of the Province. In some ways this later period of his life was his most fertile and revolutionary. The Cotswold region and its vicinity were central to his thinking. He wondered whether some of the great so-called 'villa' complexes such as at Chedworth near Cirencester and Box, Wiltshire, were conventional residences or were in fact parts of religious sanctuaries. He was for instance specially impressed by the great relief of a hunter-god from Box and other items from the latter site including a votive eye. One of us, writing on religion and art in Roman Britain under his tutelage, for he was academic editor of the Batsford Archaeological Series, found his comments on the originality of the Britons under Rome an inspiration. He pointed to the splendid plaque depicting Minerva from Lavington, Wiltshire, as a key work in demonstrating how 'the Celts imparted new life and vigour in the process of copying' and placed it on the cover of his own book. When urging the purchase of the reproduction available in Devizes Museum, he said 'You won't find anything more beautiful from the Province'.

While all these books are of continuing value to ancient historians and academic archaeologists, Graham's handbook, Practical Archaeology (1963) is a clear guide to students of archaeological method. He went on to create the Roman Pottery Studies Research Group and his contribution to this field was recognised by his Festschrift, published in 1981 Roman Pottery Research in Britain and North-West Europe. He was also instrumental in founding the Council for British Archaeology Air Photography Committee, which from the 1950s propagated archaeological knowledge derived from this expanding discipline and led ultimately to the establishment of the Air Photographs Unit and Library of the National Monuments Record, initially under the English Royal Commission on Historical Monuments. In the early 1990s the Unit and Library moved from London to its new home at Swindon, Wiltshire, and is now under the aegis of English Heritage. Graham's interests were apparently limitless. Always very anxious to help others to share his enthusiasm, he encouraged students not only in his own branches of the subject but with rare empathy anyone with something to contribute. Countless numbers of former students and those who sought his advice became devoted friends. To them he would expound his new (and sometimes revolutionary ideas) about Roman Britain, pointing out how much more there was to know about everything.

As Archaeological Advisor to Batsford he was instrumental in commissioning a prodigious list of works, most especially in Roman studies, reading each volume meticulously in typescript and making numerous pertinent comments in his distinctive hand. Writing a book for Graham was a privilege, an education in itself. In his letters as when one met him erudition was combined with warmth... but one had to meet him to experience his rich laughter and the twinkle in his eyes. Batsford published his last book, *Archaeologist at Large* (1991), a collection of fascinatingly varied papers and a bibliography of nearly three hundred of his works.

Graham took a close interest in the excavations of the spectacular Roman villa in Littlecote Park on the Wiltshire border. When the Roman Research Trust was founded as a result of this project he was a natural choice as Trustee but when that organisation broke into two factions he offered his services to the former Friends which had reformed itself as the Association for Roman Archaeology, and he became its first President. Other honours included the OBE in 1982, election Corresponding Member of the Deutschen Archäologischen Instituts in 1965, and the degree of DLitt in 1987. Beyond his own academic studies he was an assiduous reader especially in anthropology (Sir James Frazer being a favourite) and psychology (and he was especially versed in the writings of Jung). He was a sensitive connoisseur of the fine arts as well as of the applied arts, notably majolica and jade.

Even in the 1990s he loved sharing his knowledge in day and weekend schools at numerous venues including Devizes, and visiting Roman sites and excavations such as those at Blunsdon and Chiseldon, near Swindon, for by this time he had retired from Chesterton, Warwickshire to the tranquillity of the Wiltshire village of Sevenhampton. In his last illness he was cared for by his wife, ably assisted by Luigi Thompson, the archaeological illustrator who shared their home. His funeral took place in the theatrical atmosphere he so loved, accompanied by six Roman soldiers and the sound of Roman cornu trumpets. The laurel wreaths placed on the coffin of the great scholar, saluted as the 'Last of the Romans' provided a fitting end for a man who from first to last gave pleasure to so many people. May he rest in peace. He is survived by Diana his wife and by two sons from his first marriage.

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